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Several Cases of Operation for Cataract. By H. CULBERTSON, M. D., of Zanesville, O.

These cases are published not because we present anything new, but because they furnish further evidence in favor of operative measures for this condition.

Case 1.—Samuel H——, aet. 73, a colored man, presented himself, October 1st, 1856. Has always been healthy, but has taken for years his daily liquor. He has hard lenticular cataract, also a prominent eye-ball, and he can discern light from darkness; the eye is healthy otherwise. The other eye (the right) shows an incipient cataract. After ten days' preparation and rest, we operated by extraction by the upper section, assisted by Dr. A. E. Bell, of this place, previously half dilating pupil with solution of atropine. After extraction the globe was very much shrunken, and a small portion of the iris protruded, which was returned by the curette. The eye was closed with adhesive plaster and bandage, Belladonna ointment used and cold water, and a pasteboard bonnet placed on his head, as recommended by Walton. No unfavorable symptom occurring, nothing was done but to diet and keep him at rest, and on the seventh day the eye was opened, and union found complete, with slight distortion of the pupil externally, from limited adhesion of the iris to the outer and lower termination of the corneal cicatrix. The eye was again closed and rest enjoined. Everything went on well until the twelfth day, when,

contrary to orders, he walked out and drank a pint of whisky, which resulted in rheumatic conjunctivitis, which was reduced by wet cupping to temple, cold applications, saline purgatives, and pot. iodide and vini colchici. The result, when I last saw him, was that he could distinguish large objects. He went away four weeks after the operation, and died soon afterwards from pneumonia.

Case 2.—Miss Catharine H——, aet. 32 years, an Irish girl, presented herself, December 12th, 1857, with soft capsular cataract. I found, on examination, limited synechia posterior, produced by the enlarged lens, and that she was free from disease. Enjoining rest, and ordering a saline purgative, on the 17th December, after fully dilating with atropine, we operated by sclerotic puncturation with a fine straight needle, freely dividing the anterior and posterior capsule and the lens. Rest was enjoined, and cold water applied over a pledget of lint wet with the following

℞. Atropine, gr. iij.,
Aquæ Dist. ʒj.,
Acid Sulph. gtt. j.
M. N. ft. sol.

The latter was also dropped into the eye three times daily in proper quantity. The case did well, presenting no unfavorable symptoms. On the 27th December, I again operated for the depression of the capsule, and first succeeded in separating the adhesion of the capsule to the iris, by puncturing the capsule and elevating the point of the instrument back and up, and subsequently depressing. No pain or unfavorable symptom followed from either operation. The result, three weeks after the last operation, was that she could discern distinctly persons, but not small objects. She left, soon after this, with her family, since which time I have been unable to hear from her. We were assisted in this operation by a student, Mr. Isom.

Case 3.—Mrs. Richard A——, aet. 35, of nervous temperament, presented herself, May 6th, 1858, with double corneal ulceration and incipient staphyloma cornea, from variola, which latter she had taken while west. Her system was broken, and her mind extremely depressed in view of her prospects of future sight.

I gave Syr. Ferri Iodidi and Ol. Jecor. Aselli internally, and applied locally cold water, and enjoined rest in a darkened chamber. After a time, lotions of Plumbi Acetas were used around

the eye, and occasionally a little allowed to enter it. Under this treatment her system came up, and the ulcers healed, and we were not troubled with staphyloma, nor incrustations of lead. The disease resulted in synechia anterior in both eyes, and opacity of both cornea, save at a small spot at the outer margin of the cornea of the right eye, and at the inner of the left. She had also frequent attacks of neuralgia in the right eye, and subsequently in the left, from the traction of the iris on its ciliary margin. These generally yielded to 20 drop doses of

℞. Tr. Ferri Murias, ℥ss.,
Morph. Sulph., gr. j.
S —— M. sol.

October 20th, '58, we operated for marginal, external, artificial pupil, by laceration, using an Iris knife, hook and scissors. Entering a little to the inner side of the centre of the cornea, in opaque structure, we succeeded in bringing out and strangulating a small portion of iris, and cut it off. On tearing the margin of the iris she retched, and we thought caused the hook to touch the lens. Very little irritation resulted from the operation, and she gained sufficient vision to go about her house and to visit neighbors. This continued for about fifteen months, when it was evident that her sight was failing; and on inspection the cause was seen to be linear cataract, probably traumatic. We depressed the cataract by corneal puncturation, after freely dividing it, in February, 1860. The cataract absorbed well, but a portion of the capsule fell over the pupil and obstructed vision. The poor woman begged me to remove it, which I did successfully, before adhesion took place to the margin of the pupil. She now sees but little, still this is much to her. She can distinguish colors, and the figures on her dress. I have tried various glasses and combination of lenses, but they do not seem to improve vision in this case. The other eye I did not interfere with, as there was no perception of light, and synechia anterior was complete. I was assisted in this case by Dr. A. Ball.

Case 4.—Miss Paralee C——, a young lady aet. 24 years, a native of Virginia, and of nervous temperament, presented herself, June 5th, 1859, with double, congenital capsular cataract. On inspection with the opthalmascope, and dilatation of the pupils, it was plain both eyes had been operated on for solution, and she informed me that Dr. Hullion, of Wheeling, had done so, some eighteen months previously. She now could distinguish colors,

but not objects. She had the usual rolling of the eyes common in congenital cataract. There were no adhesions of the iris, and the eyes were healthy; but her general system was aenemic and much prostrated. We gave iron and bitter infusion, and regulated the bowels, and on the 15th June (assisted by Dr. Ball), after well dilating the pupil, and giving a large dose of brandy (not desiring to give chloroform), we seized the conjunctiva below the cornea with strabismus forceps, and using a fine straight needle, punctured the sclerotica, and succeeded in depressing the membrane, after detaching it, at its inner lateral ciliary margin. She was put to bed and nothing given, cold water only applied, and the sol. of atropine dropped into the eye thrice daily. She had scarce any pain, but the eye remained unusually tender for a week, owing, we thought, to the eye (the left) having been inflamed at the time of the previous operation. She was kept in a dark room three weeks, and then allowed the open air, the eye being shaded. In two weeks, assisted by Dr. Bell, we operated on the right eye in the same manner, and succeeded in depressing the membrane. No pain or unfavorable symptom followed. The eye was treated as the other for a few days, and then nothing done. She kept her room ten days, and was then allowed open air, with a shade. The result of these operations, two weeks after, was ability to distinguish the outlines of medium-sized letters and characteristic letters, such as O (for she had been educated by touch), with a 2½-inch double convex lens, and with a 4-inch she conld clearly make out the outlines of sign-letters across the street. Without glasses she could distinguish persons and ordinary sized objects. When I last heard from her she had just begun to wear the glasses, the sight still as good as it was when she left, and she was teaching music. Before leaving we directed her not to use her eyes much on small work, and to do without her glasses as much as possible.

Case 5.—Mrs. Jacob Y——, æt. 58 years, a German woman, of bilious temperament, presented February 4th, 1860, with hard capsulo-lenticular cataract. She suffered from constipation and spasms of eyelids, and her eyeballs were much sunken. There were a few enlarged blood vessels on the sclerotic, but no iris-adhesions; and she could distinguish daylight from darkness. After regulating her bowels, we (assisted by Dr. Strall) operated on the 12th of February, by sclerotic puncturation, with a fine curved needle, and succeeded in depressing to the outer and lower division of the eye,

having previously well lacerated the capsules. She was sick at stomach afterward, for which an opiate was given. Cold water was applied and solut. atropine used, and rest in a dark room enjoined.

On the 8th day we operated again, to depress a portion of the capsule which obstructed the pupil, and succeeded. Nothing unpleasant occurred, and in two weeks more I allowed her to go out with her eye shaded, and ordered her to keep it so shaded for three months. The other eye (right) showed incipient cataract, which has not progressed since the operation on the left. In six months she used a two-and-a-half and four inch glass; with the stronger she can read medium sized print, and with the weaker glass she can see ordinary sized objects across the street. Her sight still improves at this date (May 6th).

Case 6.—Mr. C. W. B——, æt. 52, a native of this place, of lymphatic temperament and healthy, presented the 27th of April, 1860, with a capsulo-lenticular cataract of the left eye. There were no adhesions; the eye seemed healthy; and he could detect daylight from darkness. The right eye was still good. After giving a saline purgative, and enjoining rest and quiet a few days, I operated on the 1st of May, 1860, assisted by Dr. Strall, with a fine, curved needle, by the sclerotic puncturation, for solution and depression, and succeeded; and found the lens hard in the centre and soft around this. He had no pain, but was very nauseous, for which I gave him a grain of morphine. This acting, he was not so pothered again. The atropine sol. was freely used externally, around and in the eye, and cold water also applied. He was purged freely, and occasionally given an anodyne. Under this treatment he did well.

But a small portion of the lens had entered the anterior chamber subsequently to the operation. Not desiring to leave it there, on the eighth day I endeavored to return it into the vitrious chamber with a curved needle through the sclerotica, but failed. Not deeming it prudent to remove it externally through the cornea by linear extraction, we waited a more proper time.

The patient did well after this operation also. His business calling him away, he was unable to have extraction performed, and on his return it was evident that absorption would remove the portion. The pupil was kept dilated, and in nine months it became so thin as to partially float back into the vitrious chamber, and lay over

the lower margin of the iris. This distorted the pupil, but the eye did not suffer, and we let it alone. And now, under the use of vinum opii, the pupil is gradually closing. He can see objects laterally, and, when the pupil is natural, will probably have good vision. The other eye is still good.

Case 7.—Mr. J. D——, æt. 47 years, of bilious temperament; a drinking man, with system considerably injured from that cause; presented himself on the 3d of May, 1860, with hard capsulo-lenticular cataract. There were no adhesions of the iris. The eye was very deep in the orbit, and the other eye had run out from the operation of a cotemporary some two years before. He suffered much from rheumatic pain in this eye, which did not affect the best one. He had not been drinking for some time. He was given saline laxatives, a blue pill or two, and colchicum, for several days, and on the 8th of May, 1860, the cataract was depressed with a straight needle, and freely divided. Cold water and atropine were used, with the usual rest and dark room. For a few days he had no pain; then the bad eye began to ache and pain, but fortunately it was controlled by colchicum, salines and anodynes, and did not attack the best eye. He remained in three weeks, and went out with his eye shaded. He can now see to go about the city or country, and make out some small objects near at hand. He can not yet wear a glass.

Case 8.—Mr. Henry S——, æt. 60, had been a hard drinker some twelve years previously to his presenting himself, May 31st, 1860, with a soft capsulo-lenticular cataract. There were no adhesions, and the eye seemed healthy, with the exception of the cataract. The eye was deep set, and the other (the right) showed a nebula on the cornea. This condition aroused my suspicions as to the propriety of operating in this case, but, after a careful examination of the case, at his request I concluded to operate; and on the 4th of June, after preparing his system with tonics, we punctured the sclerotica with a very fine, straight needle, lacerating the capsule very little, and touching no other part of the eye, intending to perform linear extraction subsequently. On going back, three hours after the operation, I found the patient asleep; but the cornea a little hazy around the margin, and the pupil contracted. Cornitis, what we feared, had already began. Cold water was applied, anodynes largely given, cups applied, (had no leeches,) and mercury was given rapidly, in small doses, and by inunction to ptya-

lism; and this followed by Pot. Iodidi, in free doses. Atrophene sol. was also used freely over the eye, and blisters applied to the nape of the neck at a proper time—but all to no purpose; for the disease took its own course, general inflammation of the eye ensuing, ending in atrophy of the ball.

Diphtheria. By E. L. PLYMPTON, M.D., of Madison, Lake County, Ohio.

PROF. DAWSON—*Dear Sir:* Overwhelmed with the cares of home, and the sick abroad, and wearied with the excitement "of successful or unsuccessful war," I sit down to fulfil, in part, the intimation I once made, viz.: that I would give you the result of my experience with diphtheria.

That intimation was made at a time when this epidemic made its first appearance in this vicinity, and from its prevalence and fatality in localities not remote from my field of labor, I then apprehended that I should have more ample opportunities for observation than I have since realized. Since the advance of this disease within the limits of my practice, I have not had the opportunity of treating more than fifty well-marked cases, (I mean cases commencing with chills or chilliness, followed with headache, and a fever of more or less violence, and the diphtherial membrane in the throat,) which I could call my own, although I have seen several others, under the care of neighboring physicians. Nor do I assume that it has prevailed in so malignant a form here, judging from the report of other physicians, as it has in many other places.

My field of observation has been in a rural village, of some six or seven hundred inhabitants, and its surroundings, settled with the New England people, whose condition and habits furnish few, if any, examples of the enervating influences of extreme poverty on the one hand, or of aristocratic indulgence on the other. The first appearance of diphtheria in our community was attended with the most exciting apprehensions. It came from neighboring localities with a fearful and sad history. It came as the enemy of juvenile life, carrying desolation and anguish into many a family circle. One family had lost two of its members, another three, another five, and another nine! Notwithstanding the fearful mortality attending its march in other places, from five to fifteen miles distant, I am unable to learn that more than five deaths have occurred within the

limits of this township, which contains among its population, as I see by the township records, eleven hundred children of school age, to which number, if we add one third, (the assumed number below the age of five years,) would make near fifteen hundred in all. My first opportunity of witnessing a case of diphtheria occurred last June, in the case of two patients, under the care of a physician of good standing, but a stranger to the disease. One was a girl of five years of age, and was then in what is termed the "croupal stage." The obstruction to respiration, however, seemed almost wholly circumscribed to the glottis, producing paroxysms of extreme dyspnea, or, I might say, mechanical strangulation. Her throat had been repeatedly cauterized with nitrate of silver without the least apparent benefit, and she died a few hours after my visit. At the same time, and in the next house, my attention was called to a lad fourteen years old, then sick five or six days, with the tonsils much swollen, and with a muco-purulent discharge from the nose, fetor of the breath, etc. This boy was reported convalescent soon after my visit, and continued able to walk about the house and in the streets for some ten days, when his parents became suddenly alarmed at his apparent prostration and sent for me, at the same time summoning his attending physician. On our arrival, we found his pulse extremely weak and rapidly growing imperceptible, occasionally making an effort to vomit, calling for more air, wishing to be fanned, complaining of nothing but a "want of breath," appearing to be in a state of syncope.

He died in four hours after our arrival, without any improvement from active stimulants, cordials, etc. In short, it was death beginning at the heart. To my mind, it was a case in which the blood had become so much contaminated by the toxic elements engendered by the disease, as to render it incapable of longer sustaining the action of the heart.

The career and termination of these two cases most emphatically impressed on my mind the idea, 1st—that diphtheria is as much a blood disease as small-pox; 2d—that it should be treated with such hematic remedies as have a tendency to correct this morbid condition; 3d—that the treatment, to be effective, must be commenced either before or early in the active stage of the disease, and that it is useless to waste much time or trouble in treating the local affection of the throat. Acting upon these conclusions, I have, in every case, placed my principal reliance upon some combination of

chlorine, and mainly upon the chlorate of potash, commencing usually with a mild mercurial cathartic, oftener using the Hyd. C. Creta than any other. To a child of five years of age I give enough of the saturated solution of the chlorate to contain three or four grains, and repeat the dose every three hours during the career of the disease; and to patients older or younger in relative proportions. When the child is capable of gargling, I have him use one mouthful as a gargle, for the purpose of washing out the loose excretions of the throat, and then immediately swallow the prescribed dose. I have repeatedly penciled the throat with the nitrate of silver and the tincture of iodine without any very satisfactory results. I know of no conditions in which the cauterizing promises to do good, except in those cases where it may be necessary on account of the tumefaction of the surroundings of the throat to remove with a caustic swab the tenaciously adhering excretions for the purpose of gaining a temporary respite from threatened suffocation till the disease has time to finish its destimed career.

I can see no more philosophy in removing the membranous exudation with the expectation of mitigating or cutting short the disease, than I can in removing the pustules of variola with the expectation of safely terminating that disease. The one is as much an element of systemic disease as the other. If the diphtherial exudation be in the air passages below the epiglottis, the caustic swab will stand a poor chance of removing it in season to save the patient; if the exudation be above, it will not be much in the way of his recovery. I had used the chlorate of potash in scarlatina (as a gargle mainly) several years before I heard of diphtheria, and its good effects in that disease, coupled with an incident that occurred many years ago, contributed greatly to inspire me with confidence in its utility whenever the blood is presumed to be impaired or contaminated by the action of some zymotic poison.

Some twenty-eight years ago, when scarlatina maligna was prevailing in our midst with the most disastrous results, I had two patients—the one five years old, the other perhaps two—attacked in the decline of the acute symptoms with perpura—blood issuing from the mouth, nose, eyes, ears, bowels, bladder, and in one case, also, from a sloughing abscess behind the ear, attended with the most alarming prostration. These cases I treated with calomel in moderate cathartic doses, repeated every four hours, and guarded with opium, till they had taken six or eight doses, when the blood

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acquired the power of coagulation, and the hemorrhage subsided, and my patients got well. But I was surprised to find in the chamber vessel which they had used pure metalic mercury. Then, thought I, chlorine is the element which the blood craves, in order to correct that abnormal condition which gives rise to perpura.

I have since treated several cases on the same principle, with the same happy results, modifying the treatment somewhat with other compounds containing chlorine—such as the chloride of soda, muriatic acid, etc.,

Now, I do not presume that perpura and diphtheria are of the same pathological character, although I know that a hemorrhagic condition of the system does occasionally attend the latter; but I do think they have a remote affinity, sufficient to suggest the propriety of prescribing medicines for this disease with reference to their power of eliminating or counteracting hematic poisons. And at the head of this class of remedies for diphtheria, I place the chlorate of potash.

Whether it supplies some wanting element to the blood, or sets in operation a train of action that eliminates the diphtherial poison, or has the property of neutralizing the poison, or whether it endows the nervous centres with power to endure the influence of the poison during the course of the disease, I do not pretend to know. But I have thought the continued administration did increase the solid contents of the urine—but of this I am not positive. I have written thus much respecting its use, not because it is not generally given by regular practitioners, but because I am constrained to believe, from what I know of some of them, and the results of their practice, that they do not make it the most important item of their treatment. Some use it incidentally as an auxiliary to other means; while others do not use it at all. I not only have faith in it as a curative remedy, but as a prophylactic. It was observed by myself, and I believe by others, during the winter and spring months, that, whenever we were called into a family, and inspected the throats of the uncomplaining children, we would find three out of every five, on an average, with the mucous membrane of their throats very red, often a dark red, and occasionally showing elevated points with gray summits, while the children were yet at play as usual. These cases evidently awaited some exciting cause to develop the active invasion of the disease. A sudden cold has proved the most common, but it might be any

other cause that lowered the excitability sufficiently to provoke reaction—such as an improper meal, over fatigue, or a malarious chill. Hence I have always, whenever called into a family where this condition of the throat prevailed, set the children to taking the chlorate till the redness disappeared. And by this means I flatter myself that I have prevented many attacks, while I modified into a mild form many cases where the disease was ultimately developed.

Now, I do not wish to be understood as giving to the chlorate of potash the reputation of a specific to stand the brunt of an attack in every case alone. Because this we do not do with any medicine. We know that quinine often stands in need of the aid of other medicines to enable it to cure and remove the consequences of an intermittent fever. And if there be any medicine which merits the assistance of allies, I am sure it is the chlorate of potash.

I have discussed this aspect of the subject with some degree of earnestness, because I believe that had the disease been properly medicated in the early stage of development with this agent, there would have been in this part of the State much less fatality among those attacked. Doubtless in many localities where malarious influences prevail, quinine can not be safely omitted (and as a hæmatic remedy, I think it admissible in any case); and in others of an anemic stamp, the muriated tincture of iron should be given; but in all cases requiring any medication at all, the chlorate of potash should not be omitted. I am persuaded that calling the disease by the misnomer of "putrid sore throat" has been a frightful source of mal-practice, especially among those whose principal anxiety is to know the name of a disease rather than its nature. Calling it "putrid sore throat," the old fogy Doctor sought to cure it with prostrating cathartics, alteratives, and caustic pencilings; and the Botanic went to work with lobelia, pepper, and perhaps mandrake; while the Homeopathist, puzzled with his "similia similibus curantur," exultingly consoled his patrons that "he was giving nothing to harm them." Each pursuing his distinctive mode of treatment, the old fogy lost three out of five children in one family, the Homeopathist three out of four, and the Botanic nine out of ten. Certainly neither of them have gained any laurels by the result of their practice in this vicinity. When the Botanic had lost six of his patients, some neighbors interposed and tried to induce the family to have a change of doctors, but when the Botanic

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assured the afflicted parents that the "'pothecary doctor," which had been recommended, would give the chlorate of potash, which was "a most virulent poison," he secured the privilege of escorting the remaining three out of the world.

I notice that among some writers there is a disposition to identify diphtheria with scarlatina maligna, holding it to be a variety of that disease. Now to me this seems very strange. Scarlatina has been an old acquaintance of mine these thirty years. Seldom during that period have five years elapsed without its return in an epidemic form; and yet among the many hundred cases I have treated, and among the many deaths I have witnessed, I do not remember of seeing but one case ending in croup, whereas in diphtheria, neighboring physicians tell me that nine out of ten of their fatal cases have terminated with a diphtherial attack of the air passages, most generally confined to the trachea. Certainly I have witnessed no other fatal termination, except the case referred to in the beginning of this communication. The frequency of this local manifestation doubtless depends very much upon that atmospherical condition which produces coughs and colds, keeping up in children an irritable or congested state of the mucous tissues of the larynx, trachea, etc. Again, in diphtheria I have never witnessed any destruction of the tissues beneath the exuded membrane, while in malignant scarlatina some of my patients bore most unmistakable evidence of disorganization in the mutilated appearance of the soft palate, the uvula, and tonsils, even after they were restored to health.

Is it contagious? In one sense it is: it can be communicated by the contact of diphtherial matter to an abraded surface, or to a mucous surface exposed to the contact of air. Of this I had a convincing proof in my own person. While cleansing a swab which I had used in the throat of a very bad case, I drew it through betwixt my thumb and finger, upon which was a very slight abrasion. In forty-eight hours this abrasion was surrounded with an ash-colored blister of the size of a twenty-five cent piece, attended with some pain in my limbs, and an unusual degree of chilliness. I attended a little girl of six years of age, who had the disease in a moderate way, and after making four or five visits I dismissed her, leaving her convalescent, as I supposed. The next day I was recalled, and found the nymphæ enormously swollen, and the visible part of the vagina coated with the diphtherial exudation. This

recurrence of disease proved the most formidable part of the case. In this case I doubt not the infection was conveyed from the mouth to the genitals by her hands. I do not think it is capable of being communicated through the medium of the air. I have had no cases which could be traced to an aerial exposure.

I still have some thoughts touching controverted points in relation to this disease, which I intend to present, but I can proceed no further.

After a subsidence of the disease for many weeks, I now have the charge of a family of seven children, all sick with diphtheria. This family resides in a dilapidated house, under which is a large cellar, containing, until now, water one foot in depth, in which was floating rotten potatoes, cabbage, and other vegetables, emitting a horrible stench. I think these children are now in a way to get well.

Mind and Matter, and the reciprocal influence of the Physical Organization and Mental Manifestations. By WM. A. BROWN, McConnellsville, Ohio.

The materialistic philosophy of that school of reasoners which claims Spinosa, Hobbes and Priestly among its brightest ornaments, after having deified MATTER, which it supposes, as Plato taught several thousand years ago, to have existed from all time, inculcates the doctrine that MIND is but the result of a peculiar physical organization of matter, and thought the physiological sequence or function of the brain; that the brain, in short, is a vital organ of the same nature as the liver, kidneys, pancreas, etc., and that ideas are secreted in some such manner as bile by the liver. Aristotle taught that physics were the first in the order of studies, and metaphysics the second, and Newton thought it necessary to give the charge that the former should be on their guard against the latter; but many individuals will incline to the belief that physics can be made as absurd and pedantic as metaphysics, by running into the opposite extreme. But even in the most ultra materialism, many are the truths that shine forth with gleaming lustre, like the brilliant, diaphanous crystals of quartz in the conglomerate of dull pebbles and sand. And if materialists even go so far as to fall into error, they do better than those who hold up as a great

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champion in philosophy, Bishop Berkeley, who is remembered by every physician who has ever read anything about the tar water monomania, with which he was identified. Bishop Berkeley denied that matter existed at all—everything was mind,—and our perceptions of external things were notions impressed upon the mind by the Deity, who gave us our five senses that he might exercise the special prerogative of making them so many channels of delusions.

> "What a sublime discovery 'twas to make the
> Universe universal egotism,
> That all's ideal—*all ourselves;*
> * * * * * * *
> * * * * * * *
> But ever and anon comes Indigestion,
> (Not the most 'dainty Ariel,') and perplexes
> Our soarings with another sort of question."
>
> *Don Juan, Canto XI., Stanza ii–iii.*

Yes, indeed, we wear our heads, and are so much flesh and blood after all. But there is no reasoning, the wildest and most extravagant, but contains more or less of truth; and some of the greatest facts that are known, have been gathered into the great store-house of the legitimate knowledge of mankind, from heaps of the most absurd nonsense. The common intellect from time to time sends out envoys to all the outposts of knowledge, and down into the very sewers of falsehood and deception, to gather into the common treasury the gold dust, a grain at a time though it may be. And Aristotle and Epicurus, and Bacon and Newton have each sat at the gate, and held the keys, and been *Charge de Affairs.*

The most ultra materialists have never yet lost sight of mind as an existing principle, as the Atheist, although denying, never loses sight of God,—clothing Nature with all the divine attributes, it is still the same jewel in a new setting, the old picture in a new frame. They were the first to point out and call attention to the intimate relation existing between the body and mind, and their reciprocal influence upon each other; and if materialism considers thought to be the secretion of the brain, it deserves credit for a very ingenious hypothesis, and one, probably, which is as capable of satisfying our mental wants in regard to the matter as any other theory so far advanced. But this is a metaphysical point in physics, and if it contains any truth it is difficult to circumscribe it; but nevertheless, if there is no truth in the theory itself, we *feel* that there is a fact "some place in the neighborhood;" but it is a misty atmosphere in which to go searching for it. We cannot repress, however, the natural tendency of the mind, that innate desire to wander out into the penetralia in search of the hidden secrets of Nature,

although conscious of the liability to get lost in the darkness, and of not finding the hidden secrets or our way out again. There are certain truths lying on the confines of fact and fancy, that seem with provoking persistency to elude satisfactory elucidation; and the abstruse problems connected with intellectual operations are just sufficiently apparent to stimulate constant inquiry, and even provoke experiments with inductive philosophy, but ever beyond *proof;* and after a great amount of labor and thought expended on the subject, it is about as mystic, if not more so, than at first. Thus have psychologists fallen into scholastic vagaries and scientific speculations, never enjoying the consolation of the mathematician, whose "there's the proof of it" must, indeed, be an immense luxury. The highest refinement of matter is manifest in the organization of man, and whether it be that mind is the result of a peculiar material organization, or vice versa, or a something independent and of itself, the fact of a very intimate relation between it and the body must be recognized. Lavater was wandering around this truth when he was writing dissertations on the intellectual prognostications of certain eyes and ears; and Gall and Spurzheim were sailing in the same direction in their phrenological extravaganza. But we are inclined to the belief that it is safer to follow the Swiss enthusiast than the German physiologists; the mapping out of the brain by these latter gentlemen, and converting our heads into a sort of globe, to be turned about and inspected like the geographical models exhibited in academies, always suggested to us a ludicrous application of the moon's influence. Phrenology has had very fair opportunities to establish its claim as a science, for which it clamored the day after it was born, and all its puff and blow has only demonstrated to the world how sandy are the foundations upon which it is reared. Like every other doctrine bolstered up in a hurry, however plausible and enticing it may be, it is not long until it tumbles down.

Lavater only endeavored to perfect and systematize what has been known from the time of Hippocrates, who was himself somewhat of a physiognomist; and the greatest error of the ardent Swiss is in too much system; he almost lost the truth entirely by cutting it up in small pieces and hanging them on our hands, feet, mouth, nose, hair, etc. General physiognomy is true; special physiognomy is doubtful, and of uncertain signification. "We are settled in our conviction," says a graceful writer, "that there is something

in personal beauty of a representative and correspondent character. It represents a spiritual beauty—corresponds with a moral symmetry. Though we call it an *outward* property, still it must be a picture of the internal. It would seem impossible that there can be a speaking expression of grace and lovliness, upon a face that is but the telegraph of an inward deformity and ugliness. * * * We do not maintain that beauty of person must necessarily be the representative of *moral beauty*, according to the best and highest definition of that term. That definition, we presume, would include the virtuous and heavenly. That these traits are unfailing accompaniments of noble features—the beautiful countenance—the finished form—it would be hazardous and foolish to assert. We believe that external beauty is the representative of an internal and spiritual quality of the same nature. That beauty may be spiritual, though it may not be moral—the Beauty of Virtue. It may be the beauty of superior and surpassing powers—the Beauty of Genius. It may be the beauty of a mind, uncommon in its attraction, and in its proportions beyond a fault or question. It may be the beauty of intellectual symmetry—and this may find its speaking resemblance in the chiseled face and figure, as certainly as the moral loveliness of the heavenly inspired—the emphatically *good* man. Of what more perfect mental proportions could the human countenance have been indicative than the countenance of Napoleon? The symmetry of Genius spake there."

Who can look upon the bust of the lamented Henry Clay, and not believe him to have been a candid, earnest statesman; or upon that of Gen. Jackson and not have the conviction forced upon him, that "By the Eternal, he would *buldge*" through all obstacles opposing his purposes, by the indomitable energy and iron will expressed in his countenance. How expressive is the countenance of Washington of those qualities which so endeared him to the hearts of his countrymen, and made him the admiration of all men, and which Fame, seeing, hung up with his name in the highest gallery of her Temple! There is enough of kindness and amiability and unbounded philanthropy, to allow him to take the whole world under his Fatherly care, as well as his own country:

> "His life was gentle; *and the elements*
> *So mix'd in him*, that Nature might stand up,
> And say to all the world, *This was a man!*"
>
> *Julius Cæsar.* Act V, scene V.

What scintillations of wit sparkle in the countenance of Thomas Moore; the very lines and furrows in his face seem sticking full of epigrams and graceful compliments; what a contrast to the melancholy, morose, gloomy visage of Rousseau! In Shelly's deep, languid eyes was expressed all the unintelligible, dreamy metaphysics embodied in "Queen Mab;" and in the portrait of old Dr. Sam Johnson we read anew the morals in "Rasselas," and see all his jealousy and his charity, his prejudice and his sense. The description of Cassius might have been applied to him:

> "Seldom he smiles; and smiles in such a sort
> As if he mock'd himself, and scorn'd his spirit
> That could be mov'd to smile at anything."
> *Julius Cæsar.* Act I, scene II.

The respective qualities for which these individuals were distinguished, as manifested in their works and deeds, were outwardly expressed in their physical forms, as the portraits and busts which the pencil and chisel have preserved to us, abundantly testify.

Man is by nature a physiognomist; we every day hear persons speak of "studying human nature"—recognizing those diversities of character attendant upon certain peculiarities of bodily conformation. But it would be difficult, if not impossible, to analyze the particular features upon which these expressions depend. The man of the world, though, perhaps, unconsciously, is a more finished and consummate physiognomist than the philosopher or literary recluse, however close a student he may be of the tasteful, but vague doctrines of Lavater; he surveys the entire man, and at a glance passes judgment upon his intellectual and moral character, and it is rarely that his conclusions will be found to be erroneous. There are no certain and special indications belonging to the hand, mouth or ears, but an unexplained and undefined *expression*, pervading the entire person, which is an almost infallible index of character. If Napoleon favored men with large noses, a protuberant proboscis was not the only expressive feature he recognized. Some individuals find it an impossibility to acquire this discriminating knowledge of men, and neither books or masters will ever bring them to a comprehension of it. The student himself must have the *faculty* for acquiring this special information, and will become proficient without being aware of the fact. This knowledge, with reference to the conditions of disease, constitutes one great difference between medical men. Some physicians, as soon as they enter the sick-room, by their physiognomi-

cal acumen, seem to understand at once what are the difficulties, and have their diagnosis half made up before they have asked a question. It is said that Trousseau had this faculty in an eminent degree. It is not long since it was my good fortune to sit under the instructions of that learned and excellent man, Prof. Francis Carter, of the Chair of Obstetrics in Starling Medical College, and hear him impress upon his class the importance of studying the physiognomy of the parturient woman, and the pathognomonic symptomatology of the countenance. It will be long before I forget his lucid descriptions, the importance he attached to the doctrines he inculcated, and the impression made on my mind.

The union of mind and matter is apparent in these external indications of character. We discover certain mental peculiarities to be attendant upon certain orders of bodily organization, especially approximating to uniformity in the types of physical conformation, constituting the temperaments of Hippocrates. Of course there is as great diversity of mind as there are individuals; but in those whose physical organizations are of a given type will be manifested a greater or less proclivity toward those intellectual operations which were observed by the ancients to be characteristic of that type. And the diversities, shades and modifications in the individual character, are thrown out and radiated from the person of the individual man; to which we are indebted for our discriminating recognition, in obedience to impulses that, in their nature, seem intuitive. It is not alone men of experience and mature mind who are cognizant of the outward indications of the spiritual nature, but even in children, whom we cannot suppose to have much knowledge of the world or of men from observation and the experience of life, we find a remarkable degree of physiognomical knowledge, which assumes an expression analagous to instinct.

When we read the finely drawn portraits of Tasso's Erminia and Armide, the Cordelia; Juliet and Desdemona of Shakespeare, or Byron's Gulnare, Medora and Haidee, the phantoms of such physical forms float through the mind, as satisfy an inward conviction of conforming in some mysterious manner to the respective moral characteristics exhibited in these creations. We do not see the same image of a man in Lear, Macbeth and Othello, but such physical forms come up before us as we deem are fitted to the fullest development of each tempest like passion. Macbeth could never feel the intensity of love and jealousy that swayed the breast

of Othello; and we never imagine a Macbeth to appear like an Othello. The uproarious, riotous, sack drinking, purse snatching companion of Prince Hal, could never be the moral, high minded friend of Hamlet; and we always think of Falstaff as a fat, merry, jocose fellow, with a big belly and big calves, and a countenance full of cowardice and brag; but Horatio is ever the quiet, sedate, sentimental student, with closed lips and a thoughtful eye.

"We may venture to pronounce," says the learned and eloquent Lord Karmes in his treatise on Criticism, "with some degree of assurance, that man is provided by nature with a sense or faculty that lays open to him every passion by means of its external expressions. That we should be conscious intuitively of a passion from its external expressions, is conformable to the analogy of nature: the knowledge of that language is of too great importance to be left upon experience; because a foundation so uncertain and precarious would prove a great obstacle to the formation of societies. Wisely, therefore, it is ordered, and agreeably to the system of Providence, that we should have nature for our instructor." This highly talented author remarks in another place: "The natural signs of emotions, voluntary and involuntary, being nearly the same in all men, form a universal language, which no distance of place, no difference of tribe, no diversity of tongue, can darken or render doubtful; even education, though of mighty influence, hath not power to vary or sophisticate, far less to destroy, their signification. * * As the arbitrary signs vary in every country, there could be no communication of thoughts among different nations, were it not for the natural signs, in which all agree: and as the discovering passions instantly at their birth is essential to our well-being, and often necessary for self-preservation, the Author of our nature, attentive to our wants, hath provided a passage to the heart, which never can be obstructed while eyesight remains."

The innumerable differences in men, in their mental characteristics and bodily conformation, can be referred to nothing but differences in organization throughout the entire system. The differences depending upon *temperament*, are to be attributed in part to corresponding differences in the organization of certain portions, or the whole of the body. And in consequence of this influence one person differs from another in the qualities of both person and intellect. He is more highly gifted, sprightly and vigorous, or the reverse; or he is more courageous or timid, according to his organi-

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zation. Temperament, depending upon the relative proportions of the different organs, and their relative energy, the physician every day feels the importance of recognizing in his professional intercourse with those whom he patronizes.

The four temperaments of Hippocrates, though resting on the exploded hypothesis of humoralism, Cullen remarks were probably first founded upon observation, and afterwards adapted to the theories of the ancients. Gregory added the Nervous temperament, and they have been variously modified in their arrangement and nomenclature, and several theories advanced to explain their existence. They are infinitely varied, and any of the types are difficult to realize; it has been remarked that every individual has his own peculiar temperament, upon which depend his health, ability and happiness. They combine together, and all intermediate shades are produced; and it is often difficult and sometimes impossible to determine under which temperament certain individuals may be classed. The influence of civilization, of social habits, professions and trades, is great in thus modifying temperament. Says Dr. Carpenter, "the higher the degree of intelligence we find characteristic of a particular race, the greater is the degree of variation which we meet with in the characters of individuals," not only in regard to intellect, but in physical organization.

The late Dr. Charles Caldwell has made some pertinent remarks bearing upon this subject: "By 'organization,' I mean the minute interior or radical structure of the tissues which compose the human body. That diversity in this creates a diversity in the vital properties, and that again a diversity in character, cannot I think be doubted. Whether the difference of organization here referred to consists in different proportions of the elements of living matter that form the tissues, united in the same way, or in their different modes of arrangement and union, or both, or whether it may not arise in part from different proportions of the simpler tissues entering into the formation of the more compound organs, is not known. Minute anatomy has not yet attained a degree of perfection competent to settle a point of such subtility."

Jockeys talk of "scrub" horses, and the physiologist may talk of *scrub men;* there is blooded stock among human beings as among horses, cattle and sheep, and we every day pass judgment on the quality of men. There are natural differences which cannot be obliterated. It was the theory of the ancient philosophers that

nothing would bring so much happiness to the human race as to institute a perfect equality—equality in physical strength, in mental capacity, in all things; men would then lose their individuality—their identity; and envy, jealousy, and our grosser passions would probably have no existence in our natures. We can conceive, indeed, of very delightful states of society: men may retire into their closets and build up very fine systems of philosophy, and come out into the world with an inclination to combat the present existence of things, and remodel creation after their own views. Hence the irreverent theory why man was created last—"he would have been continually bothering the Almighty with suggestions." God probably understood his business, when he set a mark upon every man by which he would know him. When Pope said, "The proper study of mankind is man," he meant man as he *is*, and not as we might think he should have been. We may use the language which Avicenna delighted to exercise as a demolisher of theorems—"God has ordered it,"—and it would no doubt be well for every one to follow in the wake of the philosopher, in these matters, and not trouble ourselves too much about His purposes.

In conversation with a very learned anatomist—a gentleman eminent for the wide range of his information—speaking of the efforts to make poets and statesmen, actors and artists out of all the youth in the land, he observed, "If a lad has the native force, the natural gifts: if he has the elements of greatness in him, he will surmount all obstacles, and rise in spite of fate; such an one cannot be kept down. But if he lacks in these natural qualities, all effort to make him great by a collegiate, sort of hot-house process, is absurd and nonsensical." The Professor in his remark did not wander from the truth. When Shakspeare made Dogberry say, "to read and write comes by nature," he intended to be witty; but he made Dogberry utter more truth than he was probably aware of. We would not presume to say the race is not susceptible of cultivation; we have exercised our talents in rendering better and more beautiful our horses, and oxen, and dogs, and why not now turn our attention to the breeding of good citizens? Who knows but that in a hundred years Cato may be commended for loaning his wife to improve the family of his friend, and the example of the illustrious Roman followed after the lapse of thus many centuries? The Romans studied the breeding of statesmen and warriors, and the history of their Senate and their campaigns seem

to show that their efforts were successful. Well might the great Cabanis exclaim: "After having remodeled a hundred times the race of horses and dogs—after having transplanted, grafted, cultivated, in all manners, fruits and flowers—how shameful is it to have totally neglected the race of man!" The known laws governing the improvement of stock apply with as much force to man as to any other genus of animals. We know how the beautiful women of Caucasia have ameliorated the condition of the Turks; and many instances are on record of a fine race of men resulting from the encampments of soldiers in obscure and remote parishes, where the race had become deteriorated. For the past fifty years philanthropists have been laboring in this field of inquiry, and pointing out what vast improvements might be made; but as yet there are very few persons who select their wives with any reference to the natural consequences following matrimony. But no degree of cultivation and improvement possible to be attained, will be adequate to the eradication of the differences which were ordered in the beginning. There will be men, in comparison, naturally of a low order and coarse texture, of dull sensibilities and gross appetites; whose sense of taste, smell and hearing, are incapable of receiving delicate impressions, faint odors, and soft sounds, and who are incapable of analogous mental emotions, which they can never understand or appreciate. They experience only moderately the sense of pleasure or of pain; they are never overjoyed or oversorrowful. They have no fine appreciation of the beautiful—a landscape, a poem, a strain of sweet music, does not electrify and thrill them with pleasure. In short, they are *scrub* men. There are others with whom Nature took more pains—

> "An invisible instinct doth frame them
> To royalty unlearn'd; honor untaught;
> Civility not seen from other: valor,
> That wildly grows in them, but yields a crop
> As if it had been sow'd."
>
> *Cymbeline*, Act. IV.

Natural meanness and baseness, by the restraints of education and social advantages in life, may be hid, but the individual will never be noted for charitable deeds and worthy purposes, if he acts out his genuine feelings. True nobility is born with us, and is not the necessary attendant upon jewels, and wealth, and hereditary honors. It is often found in the hovel as well as the palace. Nobleness of character is the gift of Nature; and is as essential a part of the organization of the person so distinguished, as his mus-

cles and bones. Education, though of powerful influence in forming and determining character, is insufficient to wholly efface or alter the labels which Nature has put upon us.

The body, through which the soul acts and operates, determines the kind of action. If the soul has good organs to act through, it will act well; if it manifest itself through a coarse, dull, sordid physical organization, the dirt of its travel will hang to its garments. The brain, the organ through which or by which it reasons and feels, is powerful from quality rather than quantity—in this all physiologists are agreed. If an individual possesses a large brain, and of good *quality*, other conditions being equal, he may be truly great, adequate to great emergencies and enterprises; he will have clearness and force of intellect, and will be competent to exercise a commanding influence over others. But if he have a brain ever so large in size and weight, if it be deficient in *quality*, he may be far below mediocrity in mental capacity and strength.

Galvani thought the body to be a galvanic machine; Dr. Arnott considered the brain an electric battery; we feel like going over to Galvani, and will not quarrel about names. The body is a machine, *per se!* Why may it not be a *machine?*—there are good watches and bad watches—there are good bodies and bad bodies: some finely wrought, and others knocked up, as it were, by Nature's apprentices. And whatever the soul can be, and in whatever manner it operates, that mysteriously complex cerebral organ has its work to perform: and if Materialists tell us it *secretes* poetry and mathematics, as the liver secretes bile, why not pocket the theory and go off satisfied? It is as wise to believe the doctrine of secretion as any other doctrine; for the truth is, we don't know anything about it. Swift, in that "divine treatise," the "Tale of a Tub," introduces a digression concerning madness, and takes the opportunity to dilate upon the question of individuation between Alexander the Great, Jack of Layden, and Monsieur des Cartes; and thus discourseth very learnedly:

"There is in mankind a certain— * * * * * *
And this I take to be a clear solution of the matter."

Nobody but Dean Swift has ever said so much in so little, upon so abstruse a question; but he tells us "it is the most abstract argument I ever engaged in—it strains my faculties to their highest stretch." And he therefore solicits the reader's most earnest attention to his solemn block of asterisks.

XUM

It is physical organization, after all, that determines the differences in men. That hump on the back of Richard III. should be judged for a vast deal of villainy: Spakspeare has put into his mouth an apology for his crimes:

> "Cheated of feature by dissembling nature,
> Deformed, unfinished, sent before my time
> Into this breathing world, scarce half made up,
> And that so lamely and unfashionable,
> That dogs bark at me as I halt by them;—
> Why I, in this weak piping time of peace,
> Have no delight to pass away the time,
> Unless to spy my shadow in the sun,
> And descant on mine own deformity."

It was his *person* that goaded him on to diabolical deeds and made him a rankling nettle in the kingdom. Poor Queen Margaret knew the signification of his outward deformity, and chills our blood cursing the "poisonous, bunch-back'd toad,"

> "That dog that *had his teeth before his eyes*,
> To worry lambs and lap their gentle blood."

The connection between matter and mind, or soul, is abstruse and mysterious; the fact of the union is fully settled, while its nature seems beyond our reach. We cannot tell whether the soul is the neurine, nervous fluid, vital principle, or a subtle, powerful, imponderable agent superadded to the nervous system. The older writers speak of it as "some exquisitely subtle *gas*—some fine, elastic, invisible fluid, sublimated by nature in the deepest and most unapproachable recesses of her labratory, and spirited with the most active of her energies." Its nature has puzzled philosophers from the time of Zoroaster; Plato dreamed away his life about it, and never found time to come down to the facts of the world. If we were to compare it to anything material, it would be electricity, from its subtility and celerity of action. But nervous fluid (if it be nervous fluid) is not electricity—the most delicate and refined instruments cannot be influenced by it, and fail to detect its presence. It is too immaterial, too refined, to be recognized by any of our senses. The microscopist cannot mount it upon his slide, nor the anatomist demonstrate it by his scalpel. After it has once fled from the body, no power on earth can bring it back, and its material friend is yielded up to chemical affinities. From the brain, through which it manifested its highest power, like from the pure and unpolluted flesh of Ophelia, violets may spring. We are to-day a man—to-morrow a green bush—the next day hanging in the market as a roast of beef or a haunch of venison. In the imagination, Hamlet

traced the dust of Alexander 'till he found it stopping a beer-barrel! "To what ignoble uses may we come, Horatio!"

> "Imperial Cæsar, dead and turned to clay,
> May stop a hole to keep the wind away."

But it would seem that the incorporeal part of us—that *spirit*—does not die when the organic machinery gives out. If Atheists say our faith in immortality is a weakness, is it not a "sweet madness?" If Pythagoras taught that after death we existed, even in the bodies and forms of brutes, was not Pythagoras a much more amiable man than Epicurus, whatever we may say of their systems of philosphy? But as, while in the body, it cannot be demonstrated in the abstract, when out of the body, it cannot be proven to exist. "I leave," says the cautious and candid Dr. Carpenter, "the question entirely open whether soul has or has not an existence independent of the body."

The people of Abdera deemed that Democritus, by long study, had lost his wits, and sent for Hippocrates to cure him. When the messengers came into the presence of the great physician, they shed tears that their townsman and the master of Epicurus should be lost to them.

> "——— never stirring from the sod below,
> He weighs and measures all the stars;
> And while he knows the universe,
> Himself he doth not know,
> Though now his lips he strictly bars,
> He once delighted to converse.
> Come, God-like mortal, try thy art divine,
> Where traits of worst insanity combine."
>
> LA FONTAINE.—*Book* viii. fab. xxvi.

Hippocrates had but little confidence in the story of the people of Abdera, but hastened, however, to see his friend. When he came to his illustrious patient, he found him busy with his dissections; Democritus was hunting for the soul; so absorbed was he in the search that he did not notice the approach of the God-like Greek.

> "He traced with study most insane,
> The convolutions of a brain;
> And at his feet lay many a scroll,
> The works of sages on the soul."

The world does not know what it has lost by the untimely fears of the Abdereans. The interruption of Hippocrates may have been at that particular juncture of time when Democritus was about to take the thing between his fingers;—as it is, it has not been found to this day. Although Dichearchus professed to have discovered it once upon a time astride the *sella turcica*. He was

learned and eloquent; but it has been insinuated by the moderns that he would boast a little.

Upon the capacity of the physical organs to act with force and elegance under its stimulation, depends the mental power of the individual. In some individuals the organism is so delicately wrought, so exquisitely toned, of such extreme fineness of texture in its ultimate component parts, the mutual relation of the material and immaterial—mind and matter—is so intimate that it is difficult to tell where the physiological condition ends and the pathological commences. The balance between body and mind is lost, and the former is soon destroyed by the tumultuous action of the latter, as a piece of ordinary machinery is torn to pieces by the application of too great power. In such persons is manifested a remarkably exquisite sensibility to all disturbing influences operating either upon the vital functions or exciting emotional or intellectual operations of the mind. In their physical exertions, their exercise will be active and quick, but they soon succumb to fatigue. In their intellectual operations, they delight to wander along the flowery paths of the imagination, but not through the oak forests of scientific inquiry. They will pursue metaphysics, but have little taste for physics and the inductive philosophy of Bacon. They will chase butterflies, but do not know the weight of cattle. They will dream of the stars, like children, but never think of calculating their distance from the earth like an astronomer. Everything bright and beautiful, all that tends to refine and elevate man, has for them a peculiar interest. Grand prospects, the valleys, cataracts and caverns of the earth, the sea, the heavens, excite deep feelings and reverential awe. They look upon the mountain rearing its head to the sky, and are competent to the production of a poem about it, but not a report upon its geological and topographical characteristics. The passions are lively; the emotions readily excited; they are ardent, enthusiastic, and make a sorry battle in the hustle and tustle of this great free-fight we denominate "the world."

> "Creatures of other mould, earth-born perhaps,
> Not spirits, yet to heavenly spirits bright
> Little inferior: whom my thoughts pursue
> With wonder, and could love, so lively shines
> In them divine resemblance, and such grace
> The hand that formed them on their shape hath pour'd."
>
> MILTON. *P. L.* bk. IV—360.

But few organizations of this mould pass the period of puberty;—the divinity that stirs within them soon frets away the frail, high-

wrought tenement. They sojourn but a brief period; we enjoy their youth as the visitation of an angel—God in them gives us a glimpse of heaven and the guests of his household. But the fairest flowers are the first to fade, and the lovliest natures are the soonest lost to us. "Whom the gods love, die young," has been a melancholy observation in all ages. They are obnoxious to the slightest exciting causes of disease, and those affections from which the less gifted readily recover soon carry them off notwithstanding the utmost efforts to restore them. The nervous system is prominently implicated, masking and obscuring the true pathological condition, rendering the diagnosis difficult and uncertain, the treatment embarrassing and unsatisfactory in the extreme, and the responses to medication, from peculiar idiosyncrasies, discouraging to the medical attendant. It has long been observed by the most intelligent and experienced physicians, that disease is peculiarly intractable, and the prognosis generally unfavorable, in children of precocious intellect. "The chance for the recovery of such precocious children is, in my opinion," says Dr. Brigham, "small, when attacked by disease; and several medical men have informed me that their own observations have led them to form the same opinion, and have remarked that in two cases of sickness, if one of the patients was a child of superior and highly cultivated mental powers, and the other one equally sick, but whose mind has not been excited by study, they should feel less confident of the recovery of the former than the latter." The few that pass the period of childhood are the victims of insanity, or scrofula in some of its protean forms.

Genius is frequently the accompaniment of this organization; and, it may be styled the "poetic temperament"—a state compatible with the highest order of mental powers, the loftiest flights of fancy, the most brilliant creations of the imagination, the most dazzling and gorgeous poetic splendors. Percy, Bysshe, Shelly, the lamented Keats, Pollock, the Brontë sisters, were beings of this order. The daughters of the late Dr. Oliver Davidson of Plattsburgh, New York, were eminent examples of this extreme delicacy of organization and excitability of the nervous system allied to genius. The mother of these two young ladies, Lucretia and Margaret Davidson, who is described as having been a woman of ardent temperament and uncommonly susceptible feelings, transmitted these qualities with double intensity to her daughters.

Lucretia and Margaret died at the respective ages of seventeen and fifteen years; having shown evidences of wonderful talent. Dr. Southey, speaking of the poems of Lucretia in the Quarterly Review, says: "There is enough of originality, enough of aspiration, enough of conscious energy, enough of growing power, to warrant any expectations, however sanguine, which the patrons and the friends and parents of the deceased could have formed." So lively was her appreciation of the beautiful, so exquisite were her susceptibilities, that she would faint while listening to some of the melodies of Moore. The rapture with which those delightful harmonies thrilled her, was quite sufficient to overcome her feeble powers. An anecdote is told of Margaret illustrating the wonderful activity of the child's mind. During a visit to New York, having engaged herself to a private theatrical, she agreed to write a play. Several days had been spent in preparing dresses, scenery, and other accessories, when she was called upon to produce the play, to be put in rehearsal. "Oh! she replied, I have not yet written it. The writing of the play is the easiest part of the preparation; it will be ready before the dresses." And in two days she produced her drama, the "Tragedy of Alethea," which, though not very voluminous, contained enough of strong character and astounding incident to furnish a drama of five times its size. Thus, before the age of fifteen, this young girl exhibited a rapidity and power of thought, and ready creative genius worthy of Sheridan himself; who, it is said, would be writing the last act of a play in the green-room at Drury Lane, while the first was being produced on the stage. But consumption soon carried her off as it had done her sister, and as it has done Pollock, the Brontë's and so many others of like mould.

The doctrine has been, as Shakespeare inculcated, that "'Tis the mind that makes the body rich;" but this theory may be questioned, and leave the subject open to argument. Lord Byron, speaking of his determination to allow nothing to disturb his recollection of that truly great woman, the celebrated Mrs. Siddons, says: in the preface to the "Doge of Venice," "Siddons and Kemble were the *ideal* of tragic action; I never saw anything at all resembling them even in *person*; for this reason, we shall never again see Coriolanus or Macbeth. When Kean is blamed for want of dignity, we should remember *that it is a grace* and not an art,

and *not to be attained by study*." Certainly, we cannot counterfeit the signature of nature. Mrs. Siddons was great because her organization was compatible with greatness; the author of "Childe Harold" would have been a poet, if he had been born among the Kamtschatkans. This may savor of *fatalism*—but it is the fatalism of physiology.

American and Foreign Intelligence.

An Extraordinary Case.

We extract the following from a Parisian letter to the "New York World." The case has been referred to by several of the recent medical journals, but in none have we seen so full an account as the one below.—[Eds.

A fact of considerable interest to medical men has just been reported to the Academy of Medicine by the surgeon of the Hospital St. Eloi, at Montpelier. Professor Buisson, the surgeon in question, states that on the 1st of August, 1858, a man about fifty years of age was brought to the hospital by persons who were not able to give any precise information with regard to him, and the patient himself, being interrogated, gave incoherent responses. It was found, however, that he exhibited none of the signs of paralysis, that he had no fever, or any symptom of an acute disease. Upon examining his eyes, it was ascertained that he was deprived of sight by the existence of a double cataract. The patient could himself give no information as to the time which he had been afflicted, and in answer to all questions continued to give utterly unsatisfactory and incoherent replies. The person who had brought him to the hospital, informed the surgeon that he was in the habit of talking this way, of being continually murmuring to himself, and that he appeared to take no cognizance of what was passing around him. His appearance, and the facts which he was able to gather, satisfied M. Buisson that the unfortunate man was, at the same time, suffering under blindness and dementia. Fifteen days his symptoms were closely observed, and he was, during this time, placed upon a severe regimen, for the purpose of removing the effects of any recent morbid influence. No marked change, however, ensued; he still exhibited the same degree of imbecility, and when spoken to in relation to an operation for his cataract, he exhibited no sign of satisfaction or of hope. In short, he continued to exhibit all the usual symptoms of dementia, and the surgeons

satisfied themselves entirely that this was not the result of the abuse of alcoholic drinks, or that it followed any sudden shock of the nervous system. The patient had been a daily laborer, working upon a farm, and had continued his labor up to the time when the total loss of sight prevented him from working longer.

M. Buisson endeavored to ascertain whether the enfeeblement of the intellectual faculties in the case of this patient had commenced before or simultaneously with his loss of sight. It is a fact well known to medical men that blindness often follows cerebral affections, but in these cases it is of a purely nervous nature; it is *amaurosis*, that is to say, a paralysis of the retina, resulting from the general paralysis. But this was a case of an entirely different nature—the blindness here having a well defined anatomical cause. The patient was afflicted with cataract, which is a physical alteration of the crystalline lens, an affection which does not in the slightest degree depend upon the condition of the brain. With all his exertions, however, M. Buisson was not able to determine whether the blindness had preceded or followed the mental disease.

Such was the condition of this patient when M. Buisson determined to restore his sight by performing the usual operation for cataract, which was done upon both eyes on the 16th of August last. He was placed under the influence of chloroform, and was in such a profound condition of *anæsthesia* that the first stroke of light upon the eye did not even cause a contraction of the pupil. The usual dressings were placed upon the eyes, so that the light should be excluded, and the patient being placed in a straight-jacket, in order to prevent him from touching his eyes, was carried to his bed without exhibiting the slightest knowledge of what had passed; and during the ten days that he was confined in a dark chamber, he gave no sign of intelligence or of any consciousness that he had submitted to any operation whatever. On the tenth day the bandages were carefully removed, and the light gradually permitted to break upon his eyes. For the first time since his admission to the hospital, he gave a sign of intelligence. A smile—silly, but joyous—spreading over his whole face, and he cried, "I see! I see!" These were the first reasonable words to which he had given utterance since he had been in the hospital. Day after day, gradually, he was allowed to have more light, and day by day, as the experiments confirmed the perfect success of the operation for the cataract, they also proved what had not been dreamed of—the return of reason. As his sight became stronger, the patient became more docile. Less contrary and less indifferent to questions put to him, he began to make ready and reasonable replies. Every day marked the return of intelligence. He recognized objects about him, and uttered their names with a childish joy, and reached out his hands to seize them. This new ocular education, however, was not long required. His memory returned to him with a daily appreciable strength, and his intellectual faculties began to exhibit themselves. He demanded an augmentation of his ration, desired to get up, and already began to talk of leaving the hospital. Still, as his sight

grew stronger, his words grew plainer and more consecutive, and his ideas clearer and without incoherence, and the memory of events which occurred prior to his loss of sight began to break upon him. It was impossible, however, to ascertain with any degree of certainty when his mental powers began to fail, or were lost, and all that could be learned of his loss of sight was, that it commenced about three years ago. A month and a half after the entrance of this man, blind and demented, into the hospital, he was at work again, with his vision and his mind restored. The man was completely metamorphosed, not only in the condition of his ideas, but also in his bearing and features, which previously fixed and stupid, were now doubly illumined by the restoration of sight and reason.

These are the details of this extraordinary case, and as they are somewhat long, I will leave all comments and speculations upon them to those of your readers who may be interested in them, simply remarking that they have excited a great deal of curiosity and discussion among the *savans* of the Academy of Medicine. The question which, with the facts before them, they have endeavored to solve is, whether this recovery of reason following the recovery of sight was a simple succession of facts, or whether it has a natural effect. M. Buisson sustains the latter theory with a great deal of vigor, and it is probable that the faculty will be on the look out for other cases of a similar nature, in order to further test the truth of his theory. At any rate, as an isolated fact merely, this case is an extremely interesting one.—*Md. & Va. Med. Jour.*

Directions to Army Surgeons on the Field of Battle.

The following, taken from Mr. G. J. Guthrie's pamphlet on the Hospital Brigade, we copy from the *Lancet*. Mr. Guthrie was Surgeon-General to the British forces during the Crimean war, and consequently speaks from extensive opportunities of observation:

1. Water being of the utmost importance to wounded men, care should be taken, when before the enemy, not only that the barrels attached to the conveyance-carts are properly filled with good water, but that skins for holding water, or such other means as are commonly used in the country for carrying it, should be procured and duly filled.

2. Bandages or rollers, applied on the field of battle, are, in general, so many things wasted, as they become dirty and stiff, and are usually cut away and destroyed, without having been really useful; they are therefore not forthcoming when required, and would be of no use.

3. Simple gun-shot wounds require nothing more for the first two or three days than the application of a piece of wet or oiled linen, fastened on with a strip of sticking-plaster, or, if possible, kept constantly wet and cold with water. When cold disagrees, warm water should be substituted.

4. Wounds made by swords, sabres, or other sharp cutting instruments, are to be treated principally by position. Thus, a cut down to the bone, across the thick part of the arm, immediately below the shoulder, is to be treated by raising the arm to or above right angle with the body, in which position it is to be retained, however inconvenient it may be. Ligatures may be inserted, but through the skin only. If the throat be cut across in front, any great vessels should be tied, and the oozing stopped by a sponge. After a few hours, when the oozing is arrested, the sponge should be removed, and the head brought down toward the chest, and retained in that position without ligatures; if this is done too soon, the sufferer may possibly be suffocated by the infiltration of blood into the areolar tissue of the parts adjacent.

5. If the cavity of the chest is opened into by a sword or lance, it is of the utmost importance that the wound in the skin should be effectively closed, and this can only be done by sewing it up as a tailor or a lady would sew up a seam, skin only being included; a compress of lint should be applied over the stitches, fastened on by sticking-plaster. The patient is then to be placed on the wounded side, that the lung may fall down, if it can, upon or apply itself to the wounded part, and adhere to it, by which happy and hoped-for accident life will in all probability be preserved. If the lung should be seen protruding in the wound, it should not be returned beyond the level of the ribs, but be covered over by the external parts.

6. It is advisable to encourage previously the discharge of blood from the cavity of the chest, if any have fallen into it; but if the bleeding from within should continue, so as to place the life of the sufferer in danger, the external wound should be closed and events awaited.

7. When it is doubtful whether the bleeding proceeds from the cavity of the chest or from the intercostal artery (a surgical bugbear,) an incision through the skin and the external intercostal muscle will expose the artery close to the edge of the rib, having the internal intercostal muscle behind it. The vessel thus exposed may be tied, or the end pinched by the forceps, until it ceases to bleed. Tying a string round the ribs is a destructive piece of cruelty, and the plugs, etc., formerly recommended, may be considered as surgical incongruities.

8. A gun-shot wound in the chest cannot close by adhesion, and must remain open. The position of the sufferer should therefore be that which is most comfortable to him. A small hole penetrating the cavity is more dangerous than a large one, and the wound is less dangerous if the ball goes through the body. The wounds should be examined, and enlarged if necessary, in order to remove all extraneous substances, even if they should be seen to stick on the surface of the lungs; the opening should be covered with soft oiled or wet lint—a bandage when agreeable. The ear of the surgeon and the stethoscope are invaluable aids, and ought always

to be in use; indeed, no injury of the chest can be scientifically treated without them.

9. Incised and gun-shot wounds of the abdomen are to be treated in *nearly* a similar manner; the position in both being that which is most agreeable to the patient, the parts being relaxed.

10. In wounds of the bladder, an elastic catheter is generally necessary. If it cannot be passed, an opening should be made in the perinæum for the evacuation of the urine, with as little delay as possible.

11. In gun-shot fractures of the skull, the loose broken pieces of bone, and all extraneous substances, are to be removed as soon as possible, and depressed fractures of bone are to be raised. A deep cut made by a heavy sword through the bone into the brain, generally causes a considerable depression of the inner table of the bone, whilst the outer may appear to be merely divided.

12. An arm is rarely to be amputated, except from the effects of a cannon-shot. The head of the bone is to be sawn off, if necessary. The elbow-joint is to be cut out, if destroyed, and the sufferer, in either case, may have a very useful arm.

13. In a case of gun-shot fracture of the upper arm, in which the bone is much splintered, incisions are to be made for the removal of all the broken pieces which it is feasible to take away; the elbow is to be supported; the forearm is to be treated in a similar manner; the splints used should be solid.

14. The hand is never to be amputated, unless all or nearly all its parts are destroyed. Different bones of it and of the wrist are to be removed when irrecoverably injured, with or without the metacarpal bones and fingers or the thumb; but a thumb and one finger should always be preserved when possible.

15. The head of the thigh-bone should be sawn off when broken by a musket-ball. Amputation at the hip-joint should only be done when the fracture extends some distance into the shaft, or the limb is destroyed by cannon-shot.

16. The knee-joint should be cut out when irrecoverably injured; but the limb is not to be amputated until it cannot be avoided.

17. A gun-shot fracture of the middle of the thigh, attended by great splintering, is a case for amputation. In less difficult cases, the splinters should be removed by incisions, particularly when they can be made on the upper and outer side of the thigh. The limb should be placed on a straight, firm splint. A broken thigh does not admit of much, and sometimes of no extenson, without an unadvisable increase of suffering. An inch or two of shortening in the thigh does not so materially interfere with progression as to make the sufferer regret having escaped amputation.

18. A leg injured below the knee should rarely be amputated in the first instance, unless from the effects of a cannon-shot. The splinters of bone are all to be immediately removed by saw or forceps, after due incisions. The limb should be placed in iron splints.

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and hung on a permanent frame, as affording the greatest comfort and probable chance of ultimate success.

19. An ankle-joint is to be cut out, unless the tendons around are too much injured, and so are the tarsal and metatarsal bones and toes. Incisions have hitherto been too little employed in the early treatment of these injuries of the foot for the removal of extraneous substances.

20. A wound of the principal artery of the thigh, in addition to a gun-shot fracture, renders immediate amputation necessary. In *no other part* of the body is amputation to be done in the first instance for such injury. Ligatures are to be placed on the wounded artery; one above, the other below the wound, and events awaited.

21. The occurrence of mortification in any of these cases will be known by the change of color in the skin. It will rarely occur in the upper extremity, but will frequently do so in the lower. When about to take place, the color of the skin of the foot changes from the natural flesh color to a tallowy or mottled white. Amputation should be performed immediately above the fractured part. The mortification is yet local.

22. When this discolorization has not been observed, and the part shrinks, or gangrene has set in with more marked appearances, but yet seems to have *stopped* at the ankle, delay is, perhaps, admissible, but if it should again spread, or its cessation be doubtful, amputation should take place forthwith, although under less favorable circumstances. The mortification is becoming or has become constitutional.

23. Bleeding, to the loss of life, is not a common occurrence in gun-shot wounds, although many do bleed considerably, seldom, however, requiring the application of a tourniquet as a matter of necessity, although frequently as one of precaution.

24. When the great artery of the thigh is wounded, (not torn across,) the bone being *uninjured*, the sufferer will, probably, bleed to death, unless aid be afforded, by making compression above and on the bleeding part. A long, but not broad, stone, tied sharply on with a handkerchief, will often suffice until assistance can be obtained, when both ends of the divided or wounded artery are to be secured by ligatures.

25. The upper end of the great artery of the thigh bleeds scarlet blood; the lower end dark venous-colored blood; and this is not departed from in a case of accidental injury, unless there have been previous disease in the limb. A knowledge of this fact or circumstance, which continues for several days, will prevent a mistake at the moment of injury, and at a subsequent period, if secondary hæmorrhage should occur. In the *upper* extremity both ends of the principal artery bleed scarlet blood, from the free collateral circulation and from the anastomoses in the hand.

26. From this cause, mortification rarely takes place after a wound of the principal artery of the arm or even of the arm-pit. It *frequently* follows a wound of the principal artery in the upper,

middle, or even lower parts of the thigh, rendering amputation necessary.

27. It is a great question, when the bone is *uninjured*, where and at what part the amputation should be performed. Mortification of the foot and leg, from such a wound, is disposed to stop a little below the knee, if it should not destroy the sufferer; and the operation, if done in the first instance, as soon as the tallowy or mottled appearance of the foot is observed, should be done at that part; the wound of the artery and the operation for securing the vessel above and below the wound being left unheeded. By this proceeding, when successful, the knee-joint is saved, whilst an amputation above the middle of the thigh is always very doubtful in its result.

28. When mortification has taken place from any cause, and has been arrested below the knee, and the dead parts show some sign of separation, it is usual to amputate above the knee. By not doing it, but by gradual separating and removing the dead parts, under the use of disinfecting medicaments and fresh air, a good stump may be ultimately made, the knee-joint and life being preserved, which latter is frequently lost, after amputation, under such circumstances.

29. Hospital gangrene, when it unfortunately occurs, should be considered to be contagious and infectious, and is to be treated locally by destructive remedies, such as nitric acid, and the bivouacking and encamping of the remainder of the wounded, if it can be effected, or their removal to the open air.

30. Poultices have been very often applied in gun-shot wounds, from laziness or to cover neglect, and should be used as seldom as possible.

31. Chloroform may be administered in all cases of amputation of the upper extremity and below the knee, and in all minor operations; which cases may also be deferred, without disadvantage, until the more serious operations are performed.

32. Amputation of the upper and middle parts of the thigh are to be done as soon as possible after the receipt of the injury. The administration of chloroform in them, when there is much prostration, is doubtful, and must be attended to, and observed with great care—the question whether it should or should not be administered in such cases being undecided.

33. If the young surgeon should not feel quite equal to the ready performance of the various operations recommended, many of them requiring great anatomical knowledge and manuel dexterity, (and it is not to be expected that he should,) he should avail himself of every opportunity which may offer of perfecting his knowledge.

The surgery of the British army should be at the height of the surgery of the metropolis; and the medical officers of that service should recollect that the elevation at which it has arrived has been, on many points, principally due to the labors of their predecessors during the war in the Peninsula. It is expected, then, that they will not only correct any errors into which their predecessors may

have fallen, but excel them by the additions their opportunities will permit them to make in the improvement of the great art and science of surgery.

On Epidemic Dysentery. By Prof. TROUSSEAU.

The year 1859 was remarkable in France for the prevalence of a terrible epidemic of dysentery. While in former years, the affection has been observed only in circumscribed localities, it prevailed during the past year almost universally, Paris, too, which has perhaps been exempted from epidemic dysentery for a century, has had, on the present occasion, to pay a large tribute. Commencing towards the end of July, the epidemic attained its maximum in September, undergoing a notable diminution in intensity towards the end of October. Of all epidemic diseases, dysentery is the most murderous—typhoid fever, cholera, diphtheria, variole, and scarlatina being but as child's play compared with it. These affections prevail only accidentally, while dysentery decimates whole populations, returning at certain fixed epochs, as every three years, for example. Desgenettes declared that it killed more soldiers than the enemy's cannon did between the years 1172 and 1815. The etiological circumstances of the invasion of an epidemic may be quite inappreciable. Thus, at Tours, there are two barracks placed in identical hygienic conditions, and yet, during thirty years, it has always been the cavalry barracks in which dysentery has prevailed epidemically. The reputed effects of the excessive use of fruits in generating the disease is very doubtful, seeing that it sometimes rages when fruits are very scarce, as in 1859, while it may not be met with when they were in excessive abundance, as in 1858.

Passing by M. Trousseau's description of the disease, we come to his account of the treatment. His right to speak with some authority upon this point, is derived from the fact of his having witnessed four epidemics of the disease at Tours, Versailles, and Paris, during which the victims were either young and vigorous soldiers, aged men and women, or young children. Moreover, as reporter on Epidemics to the Academy, he has to peruse the accounts of the various epidemics which appear throughout France. Some thirty or forty years since the traditions of the former age were abandoned, Broussais sweeping away the whole of the empirical modes of treatment in favor of his doctrines. In fact, with an inflammation so violent in view, it was then difficult not to give in to them; and the antiphlogistic treatment was put freely into force, and when unsuccessful, this was believed to be because it had not been carried far enough. In 1823 or 1824, however, M. Bretonneau, imbued with the medical doctrines of Stahl and Sydenham, set on foot a re-action against the doctrines of Broussais, by resorting to a substitutive mode of treatment. He gave

an ounce of the sulphate of soda internally, and administered the same dose in a very copious enema, once or twice a day, continuing the practice as long as the stools remain bloody. As soon as they became billious and serous, the sulphate was only given once a day, then every other day, and afterwards at still rarer intervals. In 1828 or 1829, M. Trousseau published an account of an epidemic treated with success in this manner. In 1842, an epidemic occurring in the garrison at Versailles was similarly treated, but with less marked success however, at all events, the military surgeons in attendance—almost all pupils of Broussais—agreed that the sulphate of soda was preferable to blood-letting. Unanimity in favor of neutral salts, of one kind or another, has also nearly prevailed in the reports addressed to the Academy from all parts of France. Frequent failures have undoubtedly occurred, but, in general, when advice is sought early, considerable and extremely rapid success is the result. Induced by the success of the calomel treatment employed by the English at Gibralter, M. Trousseau has several times put it into force, and frequently with good effect in severe cases of dysentery, occurring, however, sporadically. He still resorts to it when the weather is very hot, but in cold and wet seasons he has found salivation and other ill consequences result from its employment. In children, too, who can only be got to take the sulphate of soda with the greatest difficulty, he prefers giving calomel. Ipecacuanha, which was so much in vogue during the last century, is now seldom employed. Opium is one of the sovereign resources of the *materia medica*, and is perhaps the pharmaceutical substance with which most harm may be effected. It is in incessant use, and is strangely abused, being, in M. Pidoux's happy phrase, the "knout of the therapeutist." With it every patient who complains or suffers is fustigated. In vain may you try the rational procedures consecrated by usage, and in vain do you appeal to your intelligence and your experience—all goes for nothing—pain is present, and the indication which dominates all others is to assuage such pain, for which opium must be prescribed. With such logic as this we make but a bad business of it, or may engage in a very perilous work. A distribution of opiates with easy compliance is the mark of an impatient and ignorant practitioner. It is a very convenient procedure, and one to which every capacity is competent, which consists in "drying up the intestinal canal" by laudanum in a case of diarrhœa, and in roughly imposing silence upon the symptom pain in a case of dysentery attended with horrible tormina. "I do not pretend to say that, after having put into force the evacuant treatment, that we must never, when the patient is suffering cruelly, temper his pains by a few drops of laudanum, but I entirely object to the practitioner at once drying up the intestinal canal (for this is the aim) in a case of diarrhœa or dysentery. Let him not meddle with opium except with cautious reserve, or he will be the cause of the typhoid symptoms, which will soon make their appearance." After

passing in review the various other means of treatment, to which he does not seem to attach much importance, M. Trousseau adds, that all these means will be of little avail if not adopted prior to the occurrence of important pathological changes. Otherwise, every effort will be paralyzed, and no means will avail against the horrible ravages of an epidemic. In conclusion, above all things, let the condition of the diet be attended to, for this is of vital consequence. Insist that two, three, or even four quantities of soup *(potage)* be taken daily, and prescribe feculent drinks, as barley and rice waters. In all the comparative trials which have been made of treating dysentery by rigorous abstinence, or by allowing aliment in wise moderation, advantage has attended the latter procedure.—*Gaz. des Hôp.—Maryland & Virginia Med. Jour.*

Contributions to the Natural History of "Insolatio," chiefly from the Medical Records of Her Majesty's Forty-Third Light Infantry. By E. H. JANES, M.D.

Perhaps there is no class of persons possessing greater facilities for investigating and describing that singular and fatal affection from protracted exposure to extreme heat, to which the terms coup-de-soleil, sun-fever, heat-apoplexy, and insolation, have been applied, than the British Army Surgeon who has been long in active service in India. The second number of *The Madras Quarterly Journal of Medical Sciences* contains two elaborate articles upon the history and nature of this disease; one of which, under the caption at the head of this article, by DR. ALEXANDER BARCLAY, Surgeon Forty-Third Light Infantry, contains the carefully recorded results of a long personal experience in different locations, and under a variety of circumstances. In the literature of the subject we find the disease described under different names, and with such a variety of views with regard to its pathology and treatment, that little is gained by reading, save the conflicting opinions of various authors, describing the same disease by different names, as seen in different localities, under different circumstances, and modified by accidental causes. In order to eliminate that which is accidental, from that which is essential in its symptoms and progress, it is necessary to carefully compare the separate accounts given by independent observers, when we shall find that whatever may be the difference in accidental complications, there is something common to all cases; the writer's observation happily illustrates this idea.

The first cases that came under Dr. B.'s notice occurred in the beginning of the year 1845, on the frontiers of South Africa. "In the glorious climate of that colony such cases are extremely rare, and, as a general rule, long exposure at any period of the day, and at any season, is not attended with the slightest degree of danger."

Several cases, however, occurred, during a lengthened period of service, all of a mild character, no fatal case having been seen or heard of. The patient, previously in perfect health, would fall suddenly in the ranks, in a state of complete insensibility, with contracted pupils, and a frequent wiry pulse, soon restored by the use of cold affusion, and generally recovered without any subsequent serious febrile symptoms. One case is reported to have fallen into a state of "melancholia" soon afterwards, and ultimately committed suicide. A careful autopsy revealed congestion of the meninges, opacity of the archnoid, and serous effusion under it, and in the ventricles of the brain. These cases all occurred in the open air, in clear weather, and nearly all, early in the day. At the outposts, along the deep valley of the Great Fish river, the thermometer often stands above 100° in a well thatched house, for weeks together, during the day, the nights being cool; but during the three hottest weeks of the season there was not a single case of sun-stroke, though the men of the European detachment were daily employed in a quarry, extracting and preparing stone for the construction of a bridge; showing that "*there*, at all events, heat alone did not seem to be a very powerful exciting cause of disease."

He next saw the disease during the hot weather campaign in Bundelcund in 1858, and instead of being the mild affair hitherto described, it was "a most formidable malady, for a time of every day occurrence, and attended with a very high degree of mortality." The regiment embarked for foreign service in the year 1851 (October), arriving at the Cape of Good Hope in the end of the same year. After being employed in operations of the most arduous character against the Kafir tribes, exposed to every variety of weather, without tents or shelter of any kind, subsisting on very indifferent food, suffering from dysentery, fever and scurvy, they embarked for India in Nov., 1853, arriving at Madras in the beginning of 1854, when the strength was soon raised by addition of volunteers to upwards of twelve hundred men. The only serious sickness that occurred during the next four years was an epidemic of cholera, from which the left wing of the regiment suffered severely; and in December, 1858, they took the field with exactly a thousand strong, of an average height of a fraction under five feet eight inches, robust and well formed, extremely temperate, and in a perfect state of discipline. We shall not attempt to follow, even briefly, their long and weary march northward; suffice it to say that owing to their sanitary precautions, they enjoyed an almost entire immunity from sickness during the greater part of it, and it was after being in the field four months and fifteen days, and a march of nine hundred and sixty-nine miles, that the first case of sun-stroke occurred. "At this time the periodical hot winds were blowing with scarcely any intermission day and night, and the heat of the weather was almost unbearable." The men had lost their robust appearance, their health gradually deteriorated, and cases of "insolatio" occurred with increased frequency.

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For a long time before the occurrence of the first cases, the men suffered more or less from prickly heat, of a severity in proportion to the amount of perspiration; and the first symptom of the injurious effects of the intense heat was the disappearance of this eruption; the skin becoming rough and scaly, and free from perspiration; followed by increased heat of the surface; constipation; loss of appetite; nausea; urine copious and limpid, with frequent calls to pass it; loss of sleep; tongue rather white posteriorly; pulse frequent, sharp, and rather small; vertigo; all attended with rapid emaciation. These symptoms were looked upon rather as predisposing to the disease than premonitory of it. The men suffering from these symptoms were admitted into the hospital as cases of "Febris Cont. Com.," and were treated with perfect rest; cold sponging of the body, cold applications to the head, regulation of the bowels, and the air of the tent kept cool, and moistened by wet "tattees," etc. Great relief followed the operation of a purgative, which was generally followed by saline diaphoretics, and an occasional opiate at night, if necessary to procure sleep. The cases of "insolatio" were generally some of the stoutest and most muscular men in the regiment, many of whom had been at some former time addicted to intemperate habits. The attacks, for the most part, came on when the men were in their tents during the day, though in some instances at night. The patient had generally been lying down, and the attention of his comrades would be arrested by his hurried and heavy breathing; and on attempting to arouse him, he was found to be insensible. Others would start up suddenly, as if endeavoring to escape some imaginary object of terror; and in others an uncontrollable burst of laughter was the only forerunner of insensibility and death, which speedily followed.

In a few rare instances the symptoms came on gradually and some by an unconquerable tendency to sleep, especially after exposure to the sun. When once fully formed, the symptoms of the disease were constant and regular. The patient lay motionless upon his back, breathing rapidly, and as death approached, more and more noisily; eyes fixed, and slightly turned upwards, becoming glassy; pupils greatly contracted; conjunctiva pinky; face invariably pale; surface dry, harsh, and burning to the touch; the heart's action very rapid and sharp; later a frothy mucus, either clear, or of a brown color, was ejected from the mouth and nose. "If the disease did not yield to treatment, the heart's action soon began to fail; the pulse became fluttering; the respiration irregular; and in a period varying from a few minutes to a few hours, death closed the scene. In a large portion of cases, from the commencement of the attack till its termination in death, the patient never moved a limb, or even an eyelid." A few cases were seized from the first with convulsions, beginning in the upper extremities or muscles of the face; and gradually extending over the whole of the voluntary muscles, became of the most violent description.

The number of cases reported for 1858 was one hundred and

eleven, of which forty-four proved fatal, excluding three cases returned under the head of "apoplexia;" neither does the number include those cases in which vertigo, nausea, prostration, and dribbling of urine were present, the effects of heat, yet returned under the head of "Febris Cont. Com.;" the term "Insolatio" being restricted to those cases in which insensibility or convulsions were present. In consulting a table of fatal cases, we find the ages varied from sixteen to thirty-nine; the duration of the disease from five minutes to thirty-two hours. Of those who recovered, according to another table, the ages varied from twenty-four to forty-one; and the duration of the disease from three to forty-seven days. The disease was next seen at Madras, in May, 1860, when three cases occurred in the same day, one of which proved fatal. In these three cases, which are reported at length, the symptoms differed in several important respects. In the fatal case, the post-mortem five hours after death revealed the following condition:—"Body rigid, and of a dark purple color posteriorly. Head—integuments exsanguine; vessels of the dura mater congested; arachnoid opaque; a small quantity of serous effusion under it; vessels on the surface of the brain everywhere intensely congested; substance of the brain natural, very little fluid in the ventricles. In each lateral ventricle there was a tumor the size of a very large green pea, and of pyriform shape, feeling gritty between the fingers, and containing several small deposits of calcareous matter, attached to the choroid plexus. Substance of cerebellum and tuber annulare congested. Thorax—cavities of right side of heart full of dark colored blood, and firm fibrous coagula. Cavities of left side empty. Valves and muscular substance of heart healthy. Both lungs, but especially the right, intensely congested, particularly posteriorly; bleeding freely when cut. Sections of a mottled reddish color. Abdomen—liver enlarged and congested, its upper surface adherent to the diaphragm; spleen rather large, congested, and friable; kidneys healthy." The question now arises: What is the true nature of this disease? Is it simply an affection of the brain from heat applied directly to the head, or apoplexy, or fever, or asphyxia? Those cases described as occurring in South Africa, the author believes to be of a purely nervous character, totally unconnected with blood disease, and uncomplicated with any serious local congestion, caused by the over stimulation of intense heat acting on the surface of the body assisted probably by a bright glare of light on the eyes. Such cases recover with or without treatment, leaving no permanent bad effects. He believes the same condition to form the first link in the chain of diseased action in those occurring in the field, and in quarters in India; but that the more serious nature of the latter cases is due to a greater intensity of the exciting cause, with the occurrence of various complications, and other modifying circumstances. The chief complications are cerebral and pulmonary congestions, especially the latter, as revealed not only by symtoms, but also by post-mortem examination.

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The predisposing causes seem to be, 1st. Plethora and unacclimatization: this was noticed throughout the campaign. 2. Debilitating causes of every kind. The men had been exposed to an extreme temperature, long and fatiguing marches, improper and insufficient food for a long time before the first case occurred; and though strictly temperate at the time, many of the first victims had been at some former time addicted to intemperate habits. 3. The peculiar febrile symptoms described as occurring in the hot season of 1858, caused by the extreme heat, producing the dry harsh state of the skin before mentioned, causing total interruption of its functions, depriving the blood of the cooling process by evaporation from the surface, and leaving the noxious matters usually thrown off by the skin to accumulate in the circulating mass, with no vicarious action from the bowels, they being invariably constipated; an extra amount of work thus thrown upon the lungs, it is easy to understand why these organs become so often complicated with this disease, to say nothing of the imperfect depuration of the blood in the lungs, from the rarification of the air. 4. Exposure to an atmosphere highly charged with electricity. It was observed that the disease occurred with increased frequency immediately before a thunder-storm; such was the case on the only day that any cases occurred at Madras. In considering the treatment of this disease, it is well to understand the different ways in which death may take place, which are, 1st. From the affection of the nervous system alone, especially in those sudden, cases occurring during active exertion in the sun, when the exciting cause acts on the surface with the greatest power, the heart's action becomes arrested, and death ensues. 2. With destruction more or less complete of the pulmonary circulation. 3. With cerebral congestion. 4. A subsequent severe febrile attack with serous effusion within the cranium.

Treatment of the first class of cases will be of little avail owing to the early period at which death takes place. Should time permit, we may use the cold douche, keeping the surface wet and exposed to a current of air, or fanned. Exclusion of light as far as possible, and, if practicable, both external and internal stimulants. In the less rapidly fatal cases, there is no doubt that benefit is often derived from treatment, if employed with promptness. The treatment adopted in the field was as follows:—The patient, at once stripped of his outer clothing, was placed in a sitting or semi-recumbent posture, and the cold douche applied from a height of three or four feet over his head, and along his spine and chest, extremities sponged with cold water. In many cases this treatment would suffice, the first symptom of returning consciousness being relaxation of the pupils. In the more obstinate cases the hair was cut short, and a blister applied to the nape of the neck, the surface previously sponged with acetum lyttæ, sinapisms to the extremities, sides and chest, strong purgative enema invariably, and repeated until its effect was produced. To this last, as well as the employment of blisters, the author attaches much value. A few

leeches were in some instances applied to the temples, in order to relieve the congestion evidenced by the state of the eyes; but venesection was not employed in any case. If the breathing became much oppressed, and the bronchial tubes loaded with mucus, great temporary relief followed turning the patient occasionally over on his face. During convalescence, the treatment consisted in regulating the bowels, saline diaphoretics, and small doses of quinine; and if necessary to induce sleep, an opiate at night. This treatment, however, was found not adapted to the convulsive form of the disease before alluded to. In these cases the cold douche could not be employed, from the agony it occasioned. After the failure of the ordinary remedies, the inhalation of chloroform was adopted with highly encouraging results, the convulsion ceasing after a few inspirations, and sleep immediately following. These cases, however, were few, and further observations are required. We shall not attempt to enumerate all the prophylactic directions of this graphic writer, as much has been anticipated in what has been said of the predisposing causes; and many of the means recommended are such as common sense would dictate. A good sanitary condition upon taking the field, a light uniform, with flannel worn under it, a suitable head-dress, proper time for marching, frequent halts, early attention to those who begin to falter, proper location and construction of tents, frequent bathing, and many other sanitary measures which will readily suggest themselves to the inquiring mind of the army surgeon, are strongly insisted upon. While none can doubt that those wholly unaccustomed to alcoholic stimulants are better in the field without them, our author questions the propriety of at once reducing others from their accustomed stimulus to that of tea and coffee; and when used, wine should be substituted for the stronger ones whenever practicable, and the least necessary quantity dispensed. For protection of the head he recommends a wetted towel under the cap, and around the neck and face; but makes no mention of the "havelocks" at present becoming so popular.

Letter from Japan.—Portions of a Letter dated Kanagawa, Japan, April 2, 1861, *from* FRANCIS HALL Esq., formerly of Elmira, Chemung Co., N. Y., to WM. C. WEY, M.D., of that Village.

[Communicated for the Boston Medical and Surgical Journal.]

A two days' storm cleared up at sunset, with a gale from the northwest, which makes our frail house tremble in every timber, and fills the air with the surf-roar of the adjacent beach. It has been a timely rain, after a long series of warm, sunshiny days, and now the country will present all the freshness and beauty of your middle of May. Flowers are blooming everywhere; the fields of colewort are golden with blossoms, and wheat and barley are a foot high: for the season is an early one here, full two weeks earlier

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than a year ago. For a month past we have had the perfection of climate, in contrast the most absolute with the long, tedious, wintry March of the Northern States. I enjoy my walks even more than I did at Elmira, and add thereto horseback excursions of ten, twenty or thirty miles a day. I was reminded of you to-day while I was re-arranging some dried botanical specimens gathered last summer. I recollected when I left home that you had among your shrubbery a *Weigela rosea*, of which you were hoping much, and which you were nursing with great care, near your front door. Some specimens of its blossoms in my hand to-day, reminded me not only of the little shrub in your yard, but of the masses of it which I saw last summer growing wild on the banks of the streams, full of fragrant blossoms. It is indigenous to this country, and everywhere abundant. Side by side with it was the beautiful honeysuckle that we twine about our doors at home, and which is seen running here by every roadside, and among the bushes and trees. So, too, the Wisteria, or Glycine, is as common as the bramble. It is pleasant to see these old favorites growing in such profusion in their native haunts, but I doubt if we prize them as much as our solitary garden specimens, away from their native land and reared with so much care. In my rambles last year, I obtained many wild trees, plants and shrubs, which I think are new, and of which I shall hope, this year, to secure specimens or seeds.

Of late, I have been more content than ever to remain in Japan. Its physical attractions, taken altogether, are hardly surpassed, I imagine. The beauty of the scenery, the productions of the soil, the equability of the climate—all render this a delightful country in which to live. I become daily more familiar with the language and customs of the country, and among the great deal which I find to please, I find little that really wearies or disgusts.

Thus far it has proved extraordinarily healthy to foreign residents. My friend, Dr. S., never has a case of fever, ague, or continued illness of any kind. Inflammatory diseases, diarrhœa, dysentery, etc., are almost as rare—and coughs and colds are novelties. I have now passed through a second winter without a cold, an experience wholly new to me. Although the climate is at times damp, even rheumatism fails to get a hold here. Cutaneous disorders are common, of obscure character, and not yielding readily to treatment. These have been a good deal of a puzzle to the physicians as to their source and character. Native practitioners are as abundant in proportion to the population, as in the most favored parts of the world. The generality of them are ignorant creatures, using a few simple remedies, and drawing largely upon the credulity of their patients, while there are others who profess no inconsiderable skill.

The Dutch at Desima of late years, through their physicians resident there, have given medical instruction to a great many Japanese. I frequently see those who have been either under direct tuition of the Dutch, or who have received instruction from the Japanese thus educated. Dr. Van Siebold has accomplished a

good work in this respect, and his pupils are scattered all over the empire. The consequence of this has been that not only foreign medical remedies but medical books have been largely introduced into this country, and the better class of the native physicians are acquainted with the uses and effects of the more important of the former, and the revelations of the latter. The desire which we so often see manifested among the people to make themselves acquainted with foreign affairs and foreign knowledge, is particularly evident among the young physicians. They contrive to learn the Dutch names of medicines and diseases, and then proceed to make all the inquiries they can. While many of them are content with a mere smattering of names, others are as truly desirous of making themselves proficient. They retain our nomenclature of the *Materia Medica*, for the most part, and you will hear them talk of calomel, rhubarb, senna, laudanum, Hoffman's anodyne, etc. The last is a favorite medicine among them; calomel, too, they use largely, and it is sold as a common remedy in all native drug shops. A young man came to our house one evening, and we observed him several times take a white powder from his pocket, and sprinkling it on some cakes, to eat it. We were of course anxious to know what it was, and finally ascertained it to be *calomel*. He was taking enough to salivate a horse, or a team of horses, for that matter. We told him what the positive effect of the medicine would be, and he threw what he had left into the fire. Santonine they buy largely, having abundant use for vermifuges. In fact, there is not a remedial agent in your drawers and bottles, but what they either know something of already, or are prepared to experiment with. They have their favorite remedies, which they employ liberally. The Dutch, in years past, were in the habit of importing a quackish mixture, which was put up in brilliant style and inscribed in Hebrew and other unknown characters. I think it was called the "Golden Mixture," or some equally sounding epithet. This took the fancy of the people, and it was largely consumed, until they learned the fact that there were such things as *quack medicines*, when it was at once scouted. Indeed, they are now very discerning in relation to quackery; they understand fully what it means, and are not to be so easily caught. Their merchants, even, comprehend that adulterations are practised in the regular trade.

We do not yet know enough of the practice and remedies of the Japanese physicians to be able to say that they have anything of value to communicate to us.

My friend, Dr. S., was recently called to a case of parturition, where a Japanese midwife was also in attendance. She was the wife of a doctor. I have seen her, and she certainly bears the impress of an intelligent woman; and so Dr. S. found her. She was skilled in her profession, and appeared to have a thorough knowledge, anatomically and physiologically, of her calling.

Surgery is a science unknown among the Japanese, even in its most minor operations, if I may be allowed the expression. Amputation they never resort to. A case occurred last fall, in which

a Japanese official was wounded in the arm by a gun-shot. The arm was nearly severed and the bone completely shattered. Drs. S. and H. were, with great reluctance on the part of the authorities, permitted to see the man. They, of course, pronounced amputation not only the best course, but as absolutely necessary to save the patient's life, and proposed to perform it. They were refused, on the plea that, *first*, it would be necessary to obtain permission to such effect from the District Governor; and *secondly*, of the parents of the man, who lived at Nagasaki, seven hundred miles away. The wounded man lingered, as you may suppose, for days and weeks, in the most critical condition, but I understand that he finally recovered, with his arm totally withered, a clog and an incumbrance to him all his life.

I cannot now recall that I have seen a single *cripple*, in the country, from the loss of a limb; and the very few of any description that I have seen, were beggars by the wayside, suffering from some malformations; but even these cases are exceedingly rare. It is one of the pleasant things of our life that we are shocked neither by deformity nor disgusting subjects of disease, as in China.

Japan is not overcrowded with population; it has a climate of a happy medium between hot and cold, and of great equability; and the means of living are easily obtained. Dyspepsia is not uncommon, owing to an exclusive, or nearly exclusive vegetable diet. Pulmonary consumption prevails to a limited extent, and, so far as I can learn, but little fever, rheumatism or ague; in fact, I have not yet ascertained the diseases of which the people *do die*. I think that bowel disorders are frequent, and perhaps fatal. Cholera has raged fearfully, carrying off in Yedo, a few years since, 130,000 in a single season. Delirium tremens, let me say here, is an unknown disease in Japan, where liquor is so abundant and cheap that it forms a part of the daily beverage of nearly every man. The liquor is strongly intoxicating, but it is the pure spirit of the grain, unmixed with noxious drugs.

Cutaneous diseases, as I have said, are very common; not as appalling as in China, but still severe and obstinate to treat. Children with diseased scalps are very plentiful, yet I should say that scrofula was rare, venereal taints having more to do with them, I suspect. Venereal disorders are rife enough, but not so disgustingly obtrusive as I saw them in China, where the malady seems to wear a more malignant type. Effects, visible to the eye, are there seen at every step in the streets; here, only now and then one in a crowd wears the brand of vice and indulgence. The origin of this disease is universally attributed to the Spanish and Portuguese of three hundred years ago, the early navigators of this country. The Japanese, in the treatment of venereal affections, have their own peculiar remedies, but are now using largely from our supplies.

I see a great many blind men, more than I can readily account for, from the prevalence of any eye disorders. The blind are a

very interesting class of population, living on charity as they wander from house to house. They are the shampooers; this is their privileged calling. I meet several of them every day, with long staffs in their hands, feeling their way through the streets; or, at night, I hear them crying their occupation, in a loud voice, as they wander about. They are always well clad and look as if comfortably fed, and never lack a helping hand to lead them in any intricate place. It is said that, at Miaco, they have a general order established, and that all attached to the order receive a yearly amount of alms. This order was founded, as you may have read, by a princely lover who wept his eyes blind for the loss of his mistress; or, as another legend says, by a captive warrior who plucked his eyes out, and gave them to his conqueror, since, whenever he looked at him, he desired to take his life in revenge.

Be that as it may, the blind man in Japan is sure to be well provided for. Many of them are physicians, and are supposed to be particularly skilled in *acupuncture*, which we would suppose would require good eyesight. I happened to call at a house, one day, when a young woman who was ill was undergoing the operation. Acupuncture, like the use of the *moxa*, has a general application for all sorts of diseases. In the case which I witnessed, the patient was complaining of severe headache, pain in the side, and loss of appetite, an affection not strange among women who dwell in the house, take no exercise, and who consume indigestible vegetables. The case appeared to be dyspepsia, more than anything else. The girl lay on the mat floor, covered with a silk quilt, and by her side was a blind physician, with his little case of long needles. He was a grave, venerable-looking old man, and I was much interested in the care with which he seemed to manipulate. His hands were under the coverings of the bed and her garments, but it was all the same to the sightless old man; he moved them slowly and carefully, as if feeling for a proper place, and then, at long intervals, would select a needle and make the puncture. There did not appear to be any pain in the operation, though occasionally the girl winced a little; yet she was regardless of the old man's presence, and sustained her part in general conversation. The doctor was as unmindful of us and of our talking, as though he had been deaf as well as blind, and his whole attention was absorbed in his task.

Moxa burning is universal, and upon every part of the body. The arms, legs, and upon either side of the spine, are the favorite places, and it is not an uncommon occurrence to see a naked coolie with scars of the moxa at regular intervals, in double rows, down the back from shoulders to hip. If a man has a headache, the moxa may go on his back, but quite as likely on his shins; or if he has pain in his leg, the application may be on either temple. It is a question for investigation whether there may not be some virtue in these remedies when properly applied.

Few escape small-pox, and every other man's face is more or less pitted. You may meet a half dozen of children in a single street, presenting different stages of the disease, for those sick with

it are not shut up, only as the necessities of each case call for confinement and care. It is a regulation, however, that children thus affected must wear a red cap to distinguish them. Encountering the malady as much as I did, three months since, I had a mild attack of varioloid, and I assure you I am quite relieved in my feelings.

The distinguishing mark of the Japanese doctor's costume is his head, clean shaven of hair. He feels the pulse and looks at the tongue, like any of the regular fraternity, and, not stinting his medicines, gives pills, potions and draughts, with true allopathic liberality, or half hides his victim under plasters. For all this he exacts no fee; whatever his patient choses to give him, is his reward. An ichibu, *per diem*, would put him in the highway to fortune.

Touching Lint.

Liebig, in one of his delightful letters on Chemistry, affirms that the quantity of soap consumed by a nation would be no inaccurate measure whereby to estimate its wealth and civilization. From the consumption of lint we may, with the same certainty, deduce important conclusions respecting the magnitude and severity of a nation's battles. In a letter which appears in another part of this journal, the effect of the American conflict on the trade in lint is touched upon, and some interesting details respecting the various kinds of lint now in the market are given. As the war fever is raging at the present time, and as the demand for lint daily increases, I take the opportunity for saying a few words about this important product.

Lint was formerly prepared from old linen rags by a process which I shall presently describe. The machine-made lint now generally used invariably contains a portion of cotton; and the variety known as cotton-lint—the term is an etymological contradiction—is formed exclusively of this fibre. Flax, which consists of woody fibre, is procured from the inner bark of the stalk of *Linum usitatissimum* by the process of steeping and stripping off the bark. Under the microscope the fibres are readily distinguished from cotton, being round and attenuated to a point at each end. Cotton is composed of the hairs surrounding the seeds of various species of *Gossypium*. These hairs, when dry, exhibit, under the microscope a peculiar twisted appearance. The quality of cotton depends on the length, strength, and firmness of the tissue, or, as it is called, the *staple*. For the preparation of lint, long-stapled cotton at about 10*d*. the pound is required.

Flax lint is more cooling to a wound than that made from cotton, as it conducts heat more readily. For the same reason a linen shirt is cooler than a calico one. Flax lint has other points of superiority; it is much softer in fibre than the cotton fabric, and

its absorbing power is greater. For many purposes, however, cotton-lint may be profitably substituted for the more costly product. Although it is not liked by the surgical profession, most pharmacists use it in unimportant cases. For wrapping round dental instruments and similar purposes, it is nowise inferior to the best flax lint.

Lint made from linen rags is now seldom seen, though many eminent practitioners prefer it to that made by steam-worked machinery. Six years ago the scraped-linen lint was in general use, and a sad outcry was raised against the patent fabric which had then been but recently introduced. The wholesale lint manufacturer of that day looked to the Jews for a supply of linen rags applicable to his purposes. For these rags he generally paid an exorbitant price. To prepare them for the operative lint-maker, who was invariably a female, the seams had to be cut out, and the ragged and threadbare portions removed. The average loss in weight from this operation amounted to nearly twelve per cent. upon ordinary rags, and to about half that on old sheeting and linen of an analogous description. The rags were then washed thoroughly clean, and cut to the width of the linting machine. Before describing the process of linting, I must call attention to the peculiar structure of the article which it produced. If the reader will take a piece of the old fashioned lint in his hand, he will find, on endeavoring to pull it to pieces, that he can do so with the utmost ease in one direction, but not in another. On examining it in a strong light he will see the reason of this. All the threads which run in one direction are but very slightly frayed or scraped, and remain nearly as strong as when they came from the loom; but the threads which run crosswise are reduced to hairs of infinitesimal thinness—though none are cut through—the rest of their substance being raised into a soft "fluff," which constitutes the lint. The process by which this result was attained has been thus described by a writer in *Chambers' Journal*, to whom we are indebted for several of the preceding facts:

"On visiting the lint-maker at her work, we find her seated in a lofty attic of a dingy house in a back street not far from the bank of the Thames, where the river runs towards Lime-house. In order to get at her apartment, we have to pass through a series of hanging gardens of damp rags, for the most part less than a foot square in size, and which, having been washed clean, are hung out to dry upon the staircase and landing, the weather being 'mizzly' out of doors. From such a manifold demonstration, we conclude that the lint-maker we have come to visit, by introduction of a friend who employs her, if she works for the middleman, works also on her own account, and cultivates a connection. On entering the room, we find her seated in front of the linting machine, a rude and primitive instrument, about the size of the stool of a banker's clerk, and not a whit more ingenious in its construction. The affair is just the shabbiest of all shabby contrivances for bringing the edge of a sharp blade, about fifteen inches in width, to bear upon a little

platform beneath. There is a kind of treadle worked by the foot, which assists the hands of the manipulator in using the knife. Upon the flat surface of the little platform is stretched the rag, or that portion of it undergoing the operation which has to be linted. A simple contrivance keeps the rag partially strained. As the knife hangs in its frame over the cloth, its edge is parallel with one line of the threads, and, of course, perpendicular to the other line. Several of these machines are at work in the room, and the blades are rising and falling with a dull, thumping, scraping sound, continually. As the blade descends, it cannot much injure the threads whose course is parallel with itself, for obvious reasons; but it would, being very sharp, cut through the others were it allowed to descend with sufficient force. The force of the descent, however, is regulated by the dexterity of the worker, so that it shall only partly sever the cross-threads; and at every fall, while the knife is down, and its edge imbedded in the partly severed threads, the blade is forcibly shifted in the direction of those threads for a certain small space. It is this horizontal shifting of the sharp and heavy blade of the knife upon the strained rag while it is half cut through, which, by disintegrating those threads that cross the blade at the right angle, and raising nine-tenths or more of their entire substance into a soft wooly pile, produces the lint. It is worthy of remark, that the threads which, lying horizontally with the knife, escape serious injury by the process, render an important service by preventing the disintegrated pile from being detached from the surface of the rag by the violent passage of the blade."

The preparation of lint by steam power has been made the subject of several patents since the above description was written. A suitable fabric is now woven expressly for the lint manufacturer in lengths of one hundred yards. This forms the raw material, and takes the place of linen rags. Having been imperfectly bleached, it is sent to the lint-maker, who completes the bleaching, and extracts impurities, consisting chiefly of lime and the bleaching agents left in the texture. The cloth is then stoved and wound on rollers ready for the linting process. In the best machines, the pile or nap is raised upon the cloth by knives making upwards of 500 strokes a minute. The motion of these knives or scrapers is rotary in some machines and vertical in others. The latter motion is stated to be practically the best, as the knives moving vertically beat and soften the cloth upon which they raise the pile. A good machine will produce about eighteen yards or two pounds of lint per hour. The fabric after leaving the machine is passed through the calender and mechanically divided into pounds. It is then rolled and labeled ready for use.

After having compared several specimens of the new lint with the almost obsolete rag lints, I am at a loss to account for the prejudice which still exists against the former. The machine-made lints possess all the valuable quantities of the older products, are much cheaper, and are sold in regular pieces, which can be cut up without waste. There are certain people who invariably cavil at

all improvements, which they scornfully term "new-fangled notions;" and I cannot help thinking that the objections which have been raised against the machine-made lints proceed from some of these lovers of the past.—*Chemist and Druggist*, May 15, 1861.

Touching Sponges.

Ordinary sponge is one of those precious common things which largely contribute to the comfort of civilized man. Its uses, which are very numerous, depend on its peculiar flexibility, porosity, elasticity, and compressibility. In the hope of finding another substance with the same properties equally well balanced, we might ransack the three kingdoms of nature in vain. In the attempt to replace this unique product by a manufactured article, we might waste as much time as the alchemists of old wasted in their fruitless researches. And this wonderful substance, for which we shall probably never find or make a substitute, is produced by animals in which we can discover no trace of special organs—animals of so humble a type that it is difficult to draw a line of demarkation between them and the lowest plants.

Every one knows that ordinary sponge is an animal product, and that it is fished up from the bottom of the sea by divers. I have reason to believe, however, that the knowledge possessed by the majority of educated persons touching this familiar substance, is confined to these two facts. Even well-known authors, who are looked up to as scientific oracles, make dreadful blunders when they come to write about sponge. In a popular modern work of reference now before me, I find it gravely stated that sponge is produced by very small marine animals which are called Polypi by naturalists, whereas it is formed by creatures of another type called Protozoa. To enlighten the ignorant, and to dissipate the errors promulgated by book-makers, I will state a few facts, on the authority of Dr. Carpenter, about sponges, and other animals belonging to the same sub-kingdom. I may here mention that the word "sponge" is applied to the complete animal, as well as to its fibrous skeleton with which we are so familiar.

The sponges belong to the lowest class of animals, and before I can hope to make the reader understand their structure, I must describe the lowest member of the class—a creature which may be said to form the first link in the great chain of life which ends with Man. This microscopic protozoon, which is by no means unfrequently to be met with in stagnant waters and vegetable infusions, is known as the *Amœba*. It may be described as a minute semi-fluid mass of *sarcode*, or formative substance, presenting scarcely any evidence of distinct organization, even of the simplest kind. However inert and shapeless this minute body may be when first noticed, its possession of vital activity is soon made apparent by the movements which it executes, and by the changes of form

which it undergoes. The shapeless mass puts forth a finger-like prolongation, which is simply an extension of its gelatinous substance in a certain direction; and a continuation of the same action first distending the prolongation, and then, as it were, carrying the whole body into it, causes the entire mass to change its place. After a short time another prolongation is put forth, either in the same or in some different direction, and the body is again absorbed into it. When the creature, in the course of its progress, meets with a particle capable of affording it nutriment, its gelatinous body spreads itself over and around the precious morsel so as to envelope it completely. The substance thus taken into this extemporized stomach undergoes a sort of digestion, the nutritive material being extracted, and the indigestible part being, as it were, squeezed out of the body. Of the mode of reproduction of the amœba nothing yet is known, save that it undergoes multiplication by self-division, and that portions separated from the mass, either by cutting or tearing, can develope themselves into independent beings. This living speck of jelly, which can get along without legs, and which can convert any portion of its substance into a stomach, may be regarded as the type of the Protozoa.

In the living sponge, the skeleton, usually composed of a fibrous network, strengthened by spicules of mineral matter, is clothed with a soft flesh, which, when examined with a powerful microscope, is found to consist of an aggregation of amœba-like bodies, some of which are furnished with long *cilia* (hair-like appendages), by the agency of which a current of water is kept up through the passages and canals excavated in the substance of the mass. From observations which have been made upon the early development of sponges, it appears that they begin life as solitary amœbæ, and it is only in the midst of aggregations formed by the multiplication of these that the characteristic sponge structure makes its appearance; the formation of spicules being the first indication of such organization. The ciliated cells seem to form the walls of the canals by which the whole fabric of the sponge is traversed. These canals, which are very irregular in their distribution, may be said to commence in the small pores of the surface, and to terminate in large vents; and a current is continually entering at the former and passing forth from the latter during the whole life of the sponge, bringing in alimentary particles and oxygen, and carrying out refuse matter. The skeleton, which gives shape and substance to the mass of sarcode particles that constitute the living animal, is composed, in the sponges with which we are most familiar, of an irregular reticulation of fibres. Most sponges are strengthened by calcareous or siliceous spicules, and the variety of forms presented by these bodies is almost endless. In the ordinary sponge, *Spongia officinalis*, the fibrous skeleton is almost entirely destitute of spicules; but in the curious and beautiful *Dictyochalix pumiceus* of Barbadoes, the entire network of fibres is composed of silex, and is so transparent that it looks as if composed of spun glass.

With the exception of those that belong to the genus *Spongilla*,

all known sponges are marine, but they differ very much in habit of growth; some are only found at considerable depths, others live near the surface, and many attach themselves to rocks and shells between the tide-marks. The average depth at which the best Turkey sponges are found is thirty fathoms; those of an inferior quality are found at lesser depths.—*Chemist and Druggist, Jan.*, 1861.

A Month in a Volunteer Camp.

Surgeon A. B. Crosby, First Regiment New Hampshire Volunteers, writes to the *Boston Medical and Surgical Journal:*

"I had the honor of being appointed Surgeon of the First Regiment N. H. V., on the first of May of the present year, and at once entered upon the discharge of my duties at Concord, N. H., where the regiment was encamped. Under the general direction of Major Seth. Eastman, U. S. A., the mustering officer, I inspected every man in the regiment. The inspection was of course not as rigid as for the regular army. It was only necessary that the recruit should be able to see and hear well, give evidence of sound lungs, show sound hands, and a free use of all his limbs. Hernia was regarded as an insurmountable objection. Between forty and fifty men were rejected under this inspection. As soon as the ceremony of mustering the men into the U. S. service was complete, the whole regiment, in accordance with the army regulations, were vaccinnated, although much against the wishes of some of the men. As soon as practicable, I organized a hospital force, consisting of a surgeon's mate, Dr. H. C. Shaw; a hospital steward, Dr. B. F. Eaton; four nurses, two matrons, and a cook. A wooden building was hastily thrown together, sufficiently large to accommodate twenty beds. Near the ridge pole, at each end, a small swing window was provided, and a suitable stove at the centre of the building, thus securing a very perfect ventilation. On the eighth of May, I commenced keeping a hospital register, according to the medical regulations of the U. S. A. From the date above mentioned to the 8th of June—one month—I had received and treated a hundred and twenty-five cases of acute disease. The number of out-patients was also very large during the month. Some mornings, as many as fifty out-patients were prescribed for, and the average of this class of patients was as high as fifteen per day.

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"The first Regiment N. H. V. has undoubtedly suffered more from disease, with one or two exceptions, than any regiment in the field. The encampment at Concord, situated on a dusty sand plain, was particularly unfavorable for the men. They were lodged in wooden barracks, with poor roofs, the weather was raw and much of the time wet, and the hospital was constantly full. The State equipped the regiment with great generosity. Through the kind

co-operation of Governor Goodwin and General Joseph C. Abbott, I was enabled to provide the medical department in a most satisfactory manner. Our medicine chest, hospital stores, etc., were abundant for the campaign, and we were prepared to open a hospital with twenty beds, wherever we might be landed. We were also provided with two ambulances, one for two and one for four horses, the latter so arranged as to carry twenty men at full length, or thirty when sitting erect. On the twenty-fifth of May we left Concord, being obliged to leave twenty men behind us, some of them convalescing from pneumonia, etc., and a few with measles.

* * * * * * *

"On Tuesday we marched through Washington and out about two miles from the city, into the park of a gentleman by the name of Fletcher. It is a most beautiful bit of turf, surrounded by fine oak trees, called Kalorama; a Greek word, as I judge, meaning 'beautiful view.' My hospital tent, large enough to accommodate twenty patients, was soon pitched, and ten men put to bed. The measles now came thick and heavy; yet, notwithstanding that we had one storm of five days, our cases all did much better than I have usually observed, in my own practice, in private families. I attribute the favorable results in our cases of acute disease to certain hygienic measures which have been scrupulously carried out in all cases. First, every patient has had his whole body sponged over with hot soap-suds once every day; and if suffering from much febrile excitement, twice. Second, all our patients have had the most simple nourishment, properly cooked, and in quantities carefully graduated to their wants. Third, there has been an abundance of fresh air always about the patients, and the beds changed as often as every other day. I had a trench dug around the edges of the hospital tent, six inches deep. At the most depending corner a gutter is dug off for some distance, so that in case of rain the drainage is perfect, and the ground under the canvass remains perfectly dry. The ground is then covered with a layer of dry straw, and our single-bed sacks, filled every time they are used with fresh straw, rest upon this layer. My hospital force is divided, so that one half is on duty twelve hours during the day, and the other half during the night. The patients are thus sure of good nursing both day and night. In case the air is very damp, a little alcohol poured into a shallow pan, and burned in the centre of the tent, dries the air perfectly, and need not be repeated more than once in two hours.

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"On referring to the list of diseases enumerated, it will be seen that fifty-eight, or nearly one-half the cases, were measles, which may be regarded as accidental; yet there remain sixty seven cases of miscellaneous affections—a large number for a regiment of healthy countrymen, only a month in camp. Much, I believe, if not the greater part of this disease has originated from the carelessness of the men themselves, who, in spite of all remonstrances, throw themselves on the damp ground, exercise no care in their diet, however much cautioned, and then wonder that they are sick.

Our men were enlisted from farms and machine-shops mainly, and undoubtedly possess a great deal of strength. They are full of pluck, and, as the saying is, 'just spoiling for a fight;' yet I do not think that it will follow that they will endure the most. At the end of a march of fifteen miles, from Washington to this place, the thermometer being at 90°, twelve men were obliged to go into hospital at once. On the contrary, the New York Ninth, made up of clerks in the city, marched side by side with us the same day, and at the end of the march had only one man to go into hospital, and he sick when they started. I attribute this to the fact that these young New Yorkers are much more in the habit of being on their feet, and walking over the 'magnificent distances' of New York. Instead of this, our New Hampshire farmers hardly ever walk any distance, usually having a comfortable wagon, and do not probably spend half as much time on their feet as city men. Most of the men in the New York Ninth are thin, wiry boys, with not a single extra ounce of adipose to carry, and take splendid care of themselves. In my judgment, the New Hampshire boys, in the trenches or in a charge, would lay the New York boys out; but on a march, the city boys have the advantage.

"The prescriptions for out-patients have been very numerous—not less, on a moderate calculation, than five hundred for the month. The water at Kalorama contained lime and magnesia, so that diarrhœa troubled the troops somewhat; but plenty of bathing, and a diet of scalded milk and burnt bread proved efficient in checking it. On the march, men are inclined to drink a great deal of water, which troubles them very much afterwards. I myself find that a canteen filled with cold tea, without sugar or cream, is the most refreshing drink on a march, if taken in moderate quantities. Those who get whisky into their canteens are sure to go down before a march is over, either from sun-stroke or drunkenness."

The Sponge Fisheries of the Bahamas. By P. L. SIMMONDS.

In our first number, we gave an account of the sponge fishery of the Ottoman Archipelago, from which the finer descriptions of sponge are obtained. The coarser descriptions entering into commerce are procured about the Bahama banks and the coast of Florida. From 1000 to 1500 bales of sponge of 300 lbs. each are shipped from Nassau, New Providence, annually.

Sponge fishing is said to have become a very profitable business in the neighborhood of Key West Florida. About 100,000 lbs. are reported to have been gathered during the last year, and the sales amounted to 25,000 dollars. The article is mostly procured by natives of the Bahamas. This is a new branch of business for Key West, and was formerly confined to the Mediterranean. The finer quality of sponge is not found on the American coasts,

although the coarse description is abundant all about the coast of Florida and the Bahama banks.

The principal supply of West India sponge comes from the Bahama Islands. The rapid strides made in sponging within this group since 1847 appears almost incredible. Although the trade has been carried on for years, a Mr. Hayman was, I am informed, the first who gave it an impetus. About the streets and outskirts of Nassau, New Providence, vast quantities of sponge may be seen covering fences, yards, and housetops, where it is left to dry, after having been previously buried (in order to kill the zoophyte which inhabits it) and washed. It is afterwards divested of the fragments of rock which adhere to it, pressed and packed in bales, averaging 300 lbs. weight each, for the London market, where it is manufactured into cloth, hats, etc., and converted to many useful purposes. The value of sponge in surgery and for domestic uses is well known. Spongio-piline has recently become the medium for applying poultices to wounds instead of cloth.

To show the importance of the sponge trade in the Bahamas, I may add the following statistics, with which I have been favored by a gentleman engaged in shipping large quantities: "From January 1, to June 30, 1850, there were exported from Nassau nearly 1000 bales of sponge, of the value of at least £5 per bale, equal to £5000. On January 1, a very small stock of sponge was on hand, while on June 30, every dealer in this article had a large stock; therefore, as it is a cash article, there must have been paid to the crews employed in this trade at least £8000." The value of the sponge exported from the Bahamas in 1852 was about £12,000.

The sponge trade of the Bahamas is in a very flourishing condition. The total value exported in 1849 was but £2,217; in 1850, £5,700; in 1851, £14,000; in 1852, £11,257. In later years the quantity of sponge exported from the Bahamas has been:

	Cwts.	Value.
1855	2,399	£9,615
1856	1,800	6,723
1857	2,657	11,025
1858	3,357	17,258

A great deal of this goes to the United States.

The Andros Islands and the Cays are the great sponging districts. The sponge is usually found in grassy and rocky patches, near the shores of this group. Crawls for cleaning these may be seen from Joulters to Jonas Cays, constructed with stakes about two inches thick, into the mud, and forming a square of twelve feet, sufficiently high to prevent the sponge washing out. In these the sponge is soaked and washed frequently, after having been buried in sand about a week or ten days, when it loses the black animal matter, which has an offensive smell. When first gathered, the pieces are wrenched from the rocks with a strong two-pronged fork fixed to a long pole. The sponges are of four kinds—yellow, glove, velvet and mop. The first is the most valuable kind, selling at

about 1*s.* the lb.; the second at 9*d.*; the velvet is the toughest, and much used in stables for its softness; the last kind is very inferior, and only used for mops. At the foregoing prices it scarcely repays the outfit, but 1*s.* 3*d.* a pound about remunerate the fishermen.

The imports of sponge from the Bahamas and United States during the past seven years have been as follows, in pounds:

	Bahamas.	United States.
1853	91,736	23,774
1854	115,213	33,159
1855	120,013	14,936
1856	79,893	3,271
1857	167,051	
1858	226,094	7,693
1859	207,450	7,234

Lon. Pharm. Journ. May, 1861, *from The Technologist.*

N. Y. Pathological Society, May 8, 1861.

BRONZE SKIN FROM FATTY LIVER.

Dr. Clark presented a third specimen, which consisted of a suprarenal capsule, removed from a person who before her death was as markedly bronzed as any person he had seen, a bronzing so much like Addison's disease that he at least had no means of distinguishing between the two. The following history of the case was furnished by the House Physician:

Rose Hughes, married, aged 40, a native of Ireland, was admitted to Bellevue Hospital, April 9th, 1861. She stated that she had been sick for som four or five months, having been first taken with a chill, and then wandering pains throughout the body. She was able to be up and about, however, until about a month previous, when, being unable to pay her rent, the landlord turned her out of her room, and she slept for three weeks on the landing at the head of the stairs, by which she took cold, as her feet swelled considerably. She had some cough now, but had some months previously spit blood for about a week. This was all that could be gained from her, and it should be stated that she was so weak, and seemed so to wander, that implicit reliance cannot be placed upon her statements.

On examination her skin was seen to be bronzed, and she stated that it had not always been so, but could not tell when she first noticed it. Well-marked signs of phthisis were discovered in both lungs, and there was suspicion of pneumonia in the left lung. She was ordered beef tea and some stimulus. She continued for two days without change, but on the third, five or ten minutes after we had made our morning visit to the ward, but had noticed no change, we were summoned to her, and told she was dying. On reaching the ward, we found that she had been assisted to the water-closet, but on reaching it, had fallen prostrate, and had to be carried back

to the bed. We found her rather wild, trying to sit up in bed, refusing to take anything, and calling for the priest. We attempted to give her some stimulus, but she would take nothing, calling for the priest, and as he arrived at once, we requested him to make her take something, which he did, but to no purpose, as she died in about fifteen minutes.

Post Mortem, fifteen hours after death.—Body much emaciated. Head not examined. The bronze color extended to the knees, with the exception of a small spot on each side. From the knees to the ankles it was absent, but appeared again on the feet. The lungs were firmly bound down by old adhesions: in the apex of the left was a large tuberculous cavity, and the lung was infiltrated with tubercles: there was also some pneumonia in the lower lobe. The right lung also contained tubercles. The liver was large and fatty, weighing seven pounds. The kidneys were natural in appearance, and there was no disease of the suprarenal capsules.

I had no hesitation in saying that this was a case of tuberculous disease of the suprarenal capsules, and I was very much surprised when it was found that there was none. Then came the question, What produced this peculiar color? On examining the liver it was found to be the seat of fatty degeneration, and the enlargement of such a character as to give place to the kidneys of both sides, by forming deep sulci. The upshot of the case is, that it must be considered an instance of ephilis hepatica, consequent probably upon this disease of the liver.

INTUS-SUSCEPTION OF INTESTINE.

Dr. Jacobi presented a specimen of intus-susception of the intestine, which had been sent to him, with the following history:

The attending physician was called to see the child on the second day of its sickness, and found it suffering from some pain in the abdomen, with moderate fever, intense tenesmus, and numerous mucous stools, mixed with blood. The diagnosis of dysentery was made, and the usual treatment for that disease was resorted to. The case was visited twenty-four hours subsequently, but the symptoms were unabated, no fœcal matter appeared in the stools, although less blood made its appearance. On careful physical examination, a small tumor was detected per rectum, at a distance of two or three inches from the anus. The correct diagnosis was then made, and purgatives were no longer resorted to. An attempt was then made to reduce the vaginated portion by means of inflation, but failed. The prominent symptoms, until death ensued, were about the same as has been stated, with the exception of the vomiting. The invaginated portion of the gut was exhibited, situated about two inches below the lower end of the rectum. The upper portion of the rectum was very hyperæmic.

Dr. Post asked if the physician had considered the expediency of opening the abdomen during life, with a view of reducing the invagination.

Dr. Jacobi did not know of any favorable result following such an operation.

Dr. Post remarked that the operation was considered justifiable when a correct diagnosis had been made.

Dr. Clark asked what were the symptoms that the physician relied upon in making the diagnosis.

Dr. Jacobi had no doubt but that the case had been one of invagination from the first, and that the physician was induced to arrive at the diagnosis from the symptoms of tenesmus, the number of passages mixed with blood, slight pain all over the abdomen, and the non-appearance of any fœcal matter in the stools twenty-four hours after the administration of a large purgative.

Dr. Clark remarked that a localized mucous inflammation had been considered by Dr. Swett and himself as a very frequent cause of invagination. The rule as regards the cause, which was more frequently applicable than any other in those cases of invagination unconnected with cerebral disease, was this: a portion of the mucous membrane becomes inflamed, the calibre of the tube becomes enlarged and loses its contractile power in consequence of the paralysis of the muscular coat, and the portion of intestine above, being in a healthy state, drops into the open intestine below. The thought occurred to Dr. Clark, while the case was being recited by Dr. Jacobi, that the occurrence of the invagination might have been caused by the dysentery affecting the rectum in a manner similar to the inflammation of the smaller intestine alluded to.

Dr. Jacobi was convinced that the explanation of the occurrence of the disease was, in a large majority of cases, perfectly true. In this connection he remarked that vomiting in this disease appeared later and disappeared sooner in children than in adults; and referred to one case of a child seven months old, with invagination of the colon, in which the vomiting ceased full two days before death.

Dr. Post did not see how Dr. Jacobi's case, in the absence of vomiting, could have been diagnosticated from dysentery.

Dr. Voss asked if polypus of the intestine might not have been a cause of invagination. He had met with two cases in which he was disposed to give this as an explanation of the origin of the trouble.

Dr. Jacobi remarked that he had never seen a case of that description.

EXSECTION OF FEMUR.

Dr. Jacobi exhibited a number of small fragments, the remains of the acetabulum and head of the femur of a boy, four years of age, upon whom he had performed the operation of exsection. The child was brought to Dr. Jacobi's clinic, and the history of the case, as given by the father, was,—that the child, about two years before, had fallen from a chair or table, and from that time the usual symptoms of hip disease had shown themselves, and increased

to the last stage of morbus coxarius. About two or three days before the patient first presented, a swelling commenced in the region of the hip joint, and was found to contain pus. This swelling, in the course of the few following days, began to increase and extend itself over the front and lower part of the abdomen of that side, giving rise to considerable constitutional disturbance. An opening was then made into the abscess, when a large quantity of pus and neurotic tissue was discharged. There were left two fistulous openings, one along the crest of the ileum, the other above the symphysis pubis. Finding that the health of the child was rapidiy run down, exsection was proposed and performed. What remained of the head of the bone, together with a portion of the neck, was removed, and also the fibro-cartilaginous ring of the acetabulum and the inner portion of the acetabulum itself, to such an extent as to expose the fascia pelvis to the extent of one-quarter of a square inch. It was eighteen days since the operation, and the child was doing remarkably well, and promised speedily to recover.

CYANOSIS IN A CHILD.

Dr. J. Lewis Smith presented a heart taken from a child five years old, who had been cyanotic from birth. About two weeks before, the child was attacked with pleuro pneumonia, which resulted fatally. During the continuance of this acute disease, the blue color of the skin became more marked than before. At the autopsy, the mucous membrane of the trachea and bronchial tubes was found injected and thickened. Both lungs were readily inflated, with the exception of a small portion of the inferior lobe on each side. The point of chief interest in connection with this case was the condition of the heart. The septum between the auricles was absent, as was also the case with the septum of the ventricles, with the exception that a narrow band extended across. The patient, during life, virtually had no more than two cavities to the heart.

Dr. Clark remarked: I don't think it is necessary to infer that the blood, in these cases, flows as a mixture. I have several specimens analogous to the one shown. I have also some in which there is an opening in the auricular septum, some in which there is a very large opening in the auricular septum, and also a corresponding one in the ventricular septum, and yet in some of the cases the persons have lived to a considerable age, and have not been invalids. The most remarkable of these cases was that of a German woman, who had earned a comfortable living for herself, and after her marriage for her daughters, by making paper matchboxes. Up to forty years old, her own statement was corroborated by that of her daughter, that she had never suffered from blueness of the face. At forty she was attacked with pneumonia, when she became subject to cyanosis and to frequent attacks of very difficult breathing. In that condition she first came under my observation. In the course of two years after, she died in one of these

attacks of dyspnœa and blueness. On post-mortem examination it was found that there was an opening in the auricular septum fourteen lines in diameter that was congenital. The opening appeared as a circular defect in the walls of the septum, and as the edges were smooth and rough, there was no chance for inferring any recent lesion. The explanation that I gave myself for the considerable degree of health which she enjoyed was this: that as the two horns beat simultaneously, auricles and ventricles, each couple at the same time, both columns were made to maintain their natural course, each serving as a wall for the other. When, however, she got pneumonia, the right side of the heart became more or less obstructed by the difficulty of sending blood through the lungs. Now the venous blood would naturally enough be forced over on the other side. This unequal action being established in the three or four weeks during which she suffered from pneumonia, the proper balance of the two columns was never afterwards gained. It seems possible that a similar condition might exist in such a heart as this. This was the case also in one of the specimens that I referred to just now where a double opening existed, and yet the child lived five years.

Dr. Krackowizer thought that cyanosis was not so much due to mixture of the blood as it was to stagnation of the venous blood in the capillaries from some contraction either in the cavities of the heart or in the arteries by which the blood finds difficulty in being propelled into the lungs. In the specimen presented he noticed that the pulmonary artery is almost a fragmentary branch.

Dr. Jacobi thought that cyanosis was due, in the majority of cases, to congenital incompetency of one of the valves.

Dr. Clark stated that he had several specimens in which cyanosis was a symptom, where nothing abnormal existed, save a deficiency in one or other septum. In such children the blue tint may not be noticed, unless the child cries, and thus distributes the circulation through the lungs.

Dr. Krackowizer remembered a case which Dr. Schilling presented to the society a few years ago of malformation of the heart, where the aorta originated from two roots, each root taking its origin in a separate ventricle, and the pulmonary artery being a branch of this aorta. Besides this, there was some malformation of other branches of the arch of the aorta. During the life of this child, far from there being cyanotic symptoms, the patient was noted for its marble-like skin.

Diffusion of Germs, (Panspermia,) Researches upon Spontaneous Generation.

We recently gave our readers the views of this question entertained by Pouchet; many scientific men have pronounced against the conclusions of this zoologist, and have referred the orign of the vegetable mycoderms obtained by him, where the atmospheric air

was excluded, to microscopic germs floating in the air, and which are so small that they may be introduced into the apparatus, despite the precautions taken to exclude them. According to this theory it is necessary to suppose that the air is full of these germs, therefore Pouchet has undertaken to submit the atmospheric air to microscopic examination. He has not found either germs or spores of infusoria in the dust suspended in the air, but he has found a great number of grains of starch. The air of great cities and other inhabited places, contains many of these starch grains, which, according to him, one might take to be eggs of infusoria, or germs of mycoderms. He has found them among the dust of old cathedrals, and even from dust obtained from Egyptian mummies, and the chambers of the pyramids, as well as among the ruins of Grecian temples. Yet there must be something in the air which has escaped recognition by the microscope, for by causing a quantity of air to pass through a tube containing calcined asbestos, and introducing some of this material into liquids which previously had access only to calcined air, and which consequently contained no trace of vegetation, Pasteur has been able to develop mucedines. We have seen the apparatus of this chemist in use at the *Ecole Normale de Paris.* This apparatus is remarkable for its simplicity and its precision, and it is impossible to object to his conclusions, for they preclude the possibility on the part of nature to continue her creative work in connection with elements purely mineral, or to animate them with the organic influence.

This chemist has already informed us, that, in order that vegetation may be developed, or fermentation produced, there is required a liquid containing water, a salt having ammonia as a base, a carbonaceous substance, and a phosphate; the air is necessary only for the moment while we introduce into the flask some spores of *penicilium*, or a little dust obtained from the air by the process indicated above. The mycodermic vegetation is then developed in less than a day, and, what is particularly remarkable, it is developed in the dark as well as in the light. The ordinary law does not govern these little organisms, for they neither give out oxygen nor absorb free carbonic acid; but on the contrary they disengage carbonic acid, and increase by fixing ammonia and phosphoric acid. The germs which produce these marvellous effects are not uniformly distributed in the air; thus Pasteur, making comparative experiments with one and the same liquid arranged in flasks completely deprived of air, found that the air from the cellars of the Observatory contained only one-tenth part as many germs as the air from the court of that establishment; and that the air contained fewer germs in proportion to its elevation in the atmosphere. This chemist has performed comparative experiments in the mountains of Jura, at an altitude of 800 metres, and in the Alps at Montanvert, (Savoy), at 2,000 metres above the level of the sea; and he has proposed to take the air from a much greater elevation by the aid of a balloon.

These researches present an interesting field to the naturalist. Pasteur has many species in vegetation, new and hitherto unknown. By varying the conditions, it will doubtless be possible to obtain others, as Paul Laurent has already done with the infusoria, in a work of which we shall speak further on. On the occurrence of these researches, Boussingault called attention to a fact pointed out by Bineau, of Lyons, who, while examining a specimen of rain-water, containing nitrates and ammonia in solution, found these materials disappearing under the influence of cryptogamic vegetation. In reference to this great question of the assimilation of nitrogen, we would refer the reader, who wishes to understand it thoroughly, to the valuable work of Boussingault, just published, entitled, "*Agronomie, Chimie Agricole et Physiologie.*"

In order that plants may be developed in meteoric waters, these waters should be found in the condition of Pasteur's liquids. It is known that rain-water contains assimilable nitrogen and also salts of potash, soda, lime, etc., but it has heretofore lacked the indispensable element, phosphoric acid, which had never been detected in rain-water. This chasm in the series of fertilizing principles of meteoric waters has at length been filled by Barral, who has discovered phosphates in rain-water. To avoid all sources of error, this chemist has experimented entirely with an apparatus of platinum. In the residue of evaporation he has obtained the phosphorus in the condition of phosphoric acid, as phosphate of bismuth, (Chancel's process,) and as the ammoniaco-magnesian phosphate. He has thus found a quantity of phosphoric acid, varying from .05 to .09 of a milligram to a litre of rain-water (= 0.0005 to 0.0009 gram.)

From these results it may be calculated that the rain-water of an ordinary shower furnishes about 400 grams of phosphoric acid to the French *hectare* or ($2\frac{1}{2}$ English acres.) Now since the researches of Boussingault have proved that a hectolitre ($2\frac{3}{4}$ bushels) of wheat takes from the soil about one kilogram of phosphoric acid, we see that to obtain seven or eight hectolitres of wheat to the French *hectare*, which corresponds to a harvest without the use of manure, it would be necessary to let the field repose for twenty years, if the soil did not previously contain a trace of phosphates. Barral in 1850 to 1852, made researches upon rain-water to detect the presence of phosphoric acid in the residue of evaporation; the udometers and other vessels of platinum employed in the present investigations were constructed at the expense of the Academie des Sciences.—*Silliman's Journal, March*, 1861.

XUM

THE HOT SPRINGS OF ARKANSAS.—Of the Hot Springs, there are some fifty-four distinctly recognizable, besides a considerable number in the bed of the creek. With one exception, their temperature ranges from 120° to 148° of Fah., and their composition is nearly the same. The exception is a warm spring (temperature 100°) discovered a year ago on the bank of the creek beneath the others. It has a strong odor and taste of sulphur, and is believed to have considerable virtues.

The quantity of water discharged by the various hot springs is estimated at 350 gallons per minute (one spring affording sixty gallons,) or, say about 500,000 gallons per diem.

The analysis of the water is as follows (by Prof. Owen, State Geologist, Arkansas:)

1½ (one and a half) gallons of water contain—

Of silica, with sulphate of lime . .	1.04 grains.
Carb. of lime, 1.68, and bi-carb. of lime .	2.04 "
Carbonate of magnesia	0.326 "
Bi-carb. of magnesia	0.05 "
Sulph. of lime, dissolved in water . .	0.35 "
Chloride of potassium	0.05 "
Chloride of sodium	2.18 "
Oxide of iron, with a little alumina . .	0.133 "
Dry powder (in solution)	1.16 "

The average attendance of visitors this spring and summer has been about four hundred, chiefly of persons afflicted with rheumatism, neuralgia, paralysis, dyspepsia, mercurial affections and syphilis. Rheumatism is the most frequent of these.

The baths are taken according to the custom of the place, without immediate medical supervision. Small wooden bath-houses are fitted over the creek, and close to the precipitous edge of the hill. Wooden reservoirs retain the water, which they receive through wooden troughs, until it is sufficiently cooled to be borne: it is then dropped in a stream of about an inch in diameter, from a height of nine or ten feet, upon the affected part, or the body generally (the time, according to the patient's power of endurance,) and is received into a large wooded tub used for the plunge bath. A small chamber adjoining receives the steam from the constant flow of water, through wooden strips on which he stands, and drinking copious draughts of "hot and hot" in the meanwhile; the patient endures the vapor for five or ten minutes without any apparatus for breathing of fresh air, an occasional protrusion of the nose at the door being necessary; after which, more drinking of "hot and hot," and to bed, to sweat profusely under blankets from half an hour to two. This, once or twice a day, and the frequent drinking fresh hot during the day, other medicines being laid aside. This is what custom prescribes.

A. J. WRIGHT, Esq.

[*N. O. Med. & Surg. Jour.—Boston Med. Jour.*

Bibliographical Notices and Reviews.

A Manual of Military Surgery, or hints at the Emergencies of Field, Camp and Hospital Practice. By SAMUEL D. GROSS, M.D., Professor of Surgery.

Hand-Book for the Military Surgeon, being a compendium of the duties of the Medical Officer in the Field, etc., etc. War Surgery, including Gunshot Wounds, Amputation, Wounds of the Chest, Abdomen, Arteries, and Head; and the use of Chloroform. By CHARLES S. TRIPLER, A.M., M.D., Surgeon U. S. Army; and G. C. BLACKMAN, M.D., F.R.M.S., Professor of Surgery in Ohio Medical College, etc., etc.

These volumes agree in several things—very nearly in size, both being small; the former less than two hundred duodecimo pages; the latter less than one hundred and fifty.

The occasion of these volumes is our present civil war. Knowing that a very large number of surgeons would be required for the two great armies, our Philadelphia and Cincinnati friends have exerted themselves in a very praise-worthy manner to get up hand-books for the emergency.

The substance of the little volume of Prof. Gross, was at first designed as an essay for his medical journal, North American Medica Chirurgical Review. It occurred subsequently to the author, that if published separately, it might be of service as a manual to those just now entering the service as military surgeons.

Feeling also at the present time the necessity of a hand-book on the duties, etc., of the surgeon, the publishers, R. Clark & Co., Cincinnati, applied to Dr. Chas. S. Tripler, U. S. A., for the liberty of publishing a series of lectures delivered by that gentleman for the last three years in the Ohio Medical College. This the Doctor consented to. The publishers requested also Prof. Blackman to supply the material for the Chapters on Wounds of the Head, Abdomen, and Arteries. A Chapter on the use of Chloroform has been added from the valuable work of McCleod on the Crimean War.

These works, as before remarked, have been got up to supply a supposed want of something of the kind just now. That they will prove to be of any material service is a matter to be decided by

those for whose special benefit they have been prepared. Both of them are very cleverly written; but they both, in scope, presume the existence of a degree of ignorance on the part of the surgeons recently appointed that we are inclined to doubt. We find in Dr. Gross' volume also quite a proportion of matter, scarcely, to say the least of it, necessary in a hand-book. A single extract from the "Manual" will serve as an illustration:

"It is not my purpose to point out the qualities which constitute a good nurse. It will suffice to say that she should be keenly alive to her duties, and perform them however menial or distasteful with promptness and alacrity. She must be *tidy in her appearance*, with a *cheerful countenance*, light in her step, noiseless, tender and thoughtful in her manners, perfect mistress of her feelings, healthy, able to bear fatigue, and at least twenty-two years of age. Neither the CRINOLINE nor the SILK dress must enter into her wardrobe."

The italics are ours. They point out, of course, the more important of the pre-requisites of a female nurse. If there is a new edition of the work called for, we would suggest to the learned author the insertion of another pre-requisite: the nurse should be *handsome, pretty* if you please. This quality is agreeable all the time, and the wonder is that the author should have omitted its recommendation.

We have in this little volume also some advice that will strike those for whom it is intended as very flattering to their intelligence. Here it is:

"In regard to *medicines*, a few articles only well selected and arranged for ready use will be necessary. It is bad enough in all conscience for a man to be severely shot or stabbed without physicking him to death. Let him by all means have a chance for his life, especially when he has already been prostrated by hemorrhage and shock. Food and drink, with opium and fresh air, will then do him more good than any thing else."

Here is a singular jumbling together of the materia medica, humanitarianism, and flings against the profession. We join in cordially with the "humanitarian" recommendation. "Let the poor soldier, by all means, have a chance for his life" we say from the bottom of our heart. Don't physic him to death either, please don't, Mr. army surgeon.

Again: "The use of *heroic* medicines, or of any medicines in *large doses* in these diseases, (fever, dysentery, etc.,) cannot be too severely reprobated. More men, there is reason to believe, have been killed in this manner in the armies and navies of the world, than by the sword and cannon. Let medicines then be administered sparingly."

What! has the author turned Homœopathist? He has certainly never taught the students of Jefferson Medical College that there are such things as "*heroic*" doses of medicine; or even "*big*" or "*little*" doses. If he has we pity the poor soldier placed under their charge. A dose of medicine, it has been supposed, is made a dose, not by its quantity or quality, but by the *nature of the case*. "*Mild*" and "*heroic*" are terms that apply as poorly to drugs as to virtue or truth. A medicine, we repeat, is a medicine because it is made so by the character of the case, and by this alone.

Just at this time, there is a morbid conservatism in regard to the use of drugs all over the country; and it is as obvious in the lowest ranks of the profession as among those who have presumed to direct the public mind. More people, it might be retorted, are now, in all probability, perishing from the want of drugs than from the "sword and cannon." In many neighborhoods, one-third of the population get no medicine at all when sick, because of false doctrines; while every where the physician finds himself embarrassed and mortified with the remark—"well, I don't believe much in medicine."

In the treatment of dysentery, the author cites the practice of English physicians in India, who, during the late rebellion there, employed *venesection*, mercury, opium, leeches, etc., and on this treatment remarks:

"Such treatment seems altogether frightful to the modern American practitioner—it strikes him as unnecessarily harsh, and as well calculated to augment the mortality of the disease. We might, in this country, perhaps, bleed, and that pretty freely, at the very commencement of an attack of dysentery; at all events, leach very copiously. * * * * And as to giving mercury with a view to ptyalism, however slight, few men would, I presume, be so fool-hardy."

Saying nothing of the *ad captandum* flings here and elsewhere in this little book, we are amazed at the presumption of the author, who condemns the practice of the physicians of India in a disease about which, experimentally, he knows nothing. The author, too, makes his condemnation the basis for treatment of the disease (dysentery) in our climate. He is, however, not consistent with himself. We find, for example, the following on the treatment of pulmonary hemorrhage from gunshot and other wounds of the chest:

"The main reliance for arresting pulmonary bleeding is upon *venesection*, copious and frequently repeated, unless the exhaustion amounts to absolute collapse."

This is a mere mechanical transfer of practice from old volumes to the work before us, a practice, too, which never had any very clear therapeutical ideas for its foundation. Indeed, it is very difficult to give a reason for the practice now, unless homœopathy be invoked—"like cures like."

In these internal hemorrhages, (pulmonary, abdominal, or cranial), how are we to know whether there is much or little hemorrhage, except by exhaustion? and, of course, when this occurs blood-letting is contra-indicated. Blood-letting, then, is no remedy in internal hemorrhage.

The contents of the work embrace—

1. Historical Sketch of Military Surgery.
2. Importance of Military Surgery.
3. Qualifications and Duties of Military Surgeons.
4. Medical Equipments—Stores and Hospitals.
5. Wounds and other Injuries.
6. Amputations and Re-sections.
7. Ill Consequences of Wounds and Operations.
8. Injuries of Head, Chest, and Abdomen.
9. Diseases Incident to Troops.
10. Military Hygiene.
11. Disqualifying Diseases.
12. Feigned Diseases
13. Medical, and Surgical, and Dietetical Formula.

The volume of Drs. Tripler and Blackman contains a large amount of matter that will interest the general medical reader, as well as our young surgeons that have just taken the field. The matter is condensed too much, but still it is very well expressed.

We have the following chapters—

1. Duties of the Medical Officer.
2. Military Hygiene.
3. Camp Dysentery.
4. Of the General History, Character, and Treatment of Gunshot Wounds.
5. Amputations.
6. Wounds of the Chest.
7. Wounds of the Abdomen.
8. Wounds of the Head.
9. Wounds of the Arteries.
10. On the Use of Chloroform.

The foundation of military like that of civil surgery, is a knowledge of anatomy—surgical anatomy, regional anatomy. Unless the young surgeon appreciates this fact fully he will be of but little service. It is only, indeed, from a knowledge of the anatomy of a region that either a sensible diagnosis or prognosis can be made. Stromeyer refers to a case where the head of the *fibula* and metatarsal bone were cut upon for a ball. We should think well, therefore, if the war is to continue, of some one getting up a manual on *Surgical Anatomy*.

The chapter on the use of chloroform, (from *Macleod's Notes on the Surgery of the War in the Crimea*), seems very favorable. It is there stated that on being employed thirty thousand times, no fatal accident followed. We fear that this statement is too good to be true. Certainly civil practice warrants no such conclusion. The French made less use of chloroform in the Crimea than the English, because they believe less in its safety.

A Treatise on the Practice of Medicine. By EDWARD R. MAXSON, M.D., formerly Lecturer on the Institutes and Practice of Medicine. Philadelphia: Lindsay & Blakiston. 1861.

This volume is a home production, the work of a Geneva (New York, we suppose,) physician. It has as its foundation a course of lectures delivered in the Geneva Medical College. It has been prepared, as the author states, at the instance of the members of the medical class.

To make the work more acceptable to those practitioners who have not time to review anatomy and physiology, the author has glanced at these departments, by giving a description of each organ before discussing the diseases peculiar to it.

We are told in the preface that—

"The work has been drawn up without even the shadow of empyricism, by taking the human system in health as the standard; and then noting the deviations from that standard constituting the various morbid conditions or diseases. By taking this course, I have been enabled to arrive at clear indications of treatment from direct pathological conditions."

We are told that this course by no means precludes the benefit of *experience* in the use of medicine, as those indicated by pathological conditions are always those which experience finds the most successful.

The author includes among remedies, the preparations of Tilden & Co., and others of similar character, now coming into general use.

We have sketched this volume pretty closely, but noticed nothing to either praise or criticise on treatment. It differs, in this respect, but little from late works by other authors. The theory of disease, that it is a mere departure from the physiological standard, the author adopts from the gentlemen of homœopathic proclivities, though, unlike them, he does not allow it to influence his therapeutics.

We are not very certain that the plan of giving an anatomical discription of organs, before describing their diseases, possesses any merit. To a practitioner of any just pretensions, it would seem to be unnecessary, for, if rusty, he has at his elbow the proper resource; while to the mere beginner, the complication would be the objection.

The *matter* of this work is respectable. The author has both lectured and practiced, and it is therefore to be presumed that he would furnish a pretty decent work. This he has done, if it be judged by the quality of the matter. We do not, however, wish to be understood as endorsing all or any of the speculations in which he has indulged.

Of the *style*, we cannot say much that is favorable. The author at times shows carelessness, want of cultivation, rudeness. If a new edition of the work before us should be called for, we shall hope to see the author mend his ways a little in things literary.

Dr. Maxson, we regard it, deserves credit for his industry. If he had expended himself, however, upon some single disease, he would have been fully as useful to his age and generation.

Camplin on Diabetis. From the Second London Edition. New York: S. S. & Wm. Wood. 1861.

This monograph was originally published in the Transactions of the Royal Medical and Chirurgical Society, but owing to the limited circulation of the Transactions, the author, in 1858, issued it in a separate form. The copy before us is a second edition, to which is appended foot notes, chiefly referring to the progress of physiological research as connected with the phenomena of diabetis.

The author himself labored under the disease for some time, and

in the paper before us he details his case at length, and his method of treatment which proved to be *a success.* A result so uncommon excited no little inquiry in the profession, and as a consequence the author, from the wish of the profession, has been induced to give it publicity. Besides, however, his own case, the author embraces the occasion to discuss the disease in all of its phases.

The pathology of Diabetis has been a very prolific subject of thought for a long time. Prout supposed the stomach and primæ viæ was the part of the system in which the change of amylaceous matters into sugar takes place. This view had currency until the striking experiments of M. Bernard induced the belief that the formation of sugar is, in all cases, due solely to the liver. The more recent experiments of M. Brown Sequard go, however, to show that in the normal state starch is, to a certain extent, converted into sugar in the stomach; and that this power may be greatly increased in the diabetic, and thus be the reverse of that which we observe in some forms of dyspepsia, in which every thing capable of such a change becomes intensely acid.

This subject has also been lately investigated with great care by Pavy, and the details of his experiments have been published in the Guy Hospital Reports. They are briefly as follows:

"The liver, during life, produces no sugar but only the substance named by Bernard, *glucogen*, but which Dr. Pavy prefers to call *hepatine*, as it is only under peculiar circumstances in the living subject and after death that it becomes sugar.

"In the normal state, during life, no sugar or a mere trace (say .047 per cent.) is to be found in the blood of the right side of the heart, not even in dogs fed on vegetable diet.

"The sugar found in the liver and blood of animals, after death, is a post mortem change of the hepatine.

"In dogs fed on vegetables only the liver undergoes great changes, the most remarkable are its increase to double the size and its producing double the amount of hepatine.

"In dogs fed on tripe, with a mixture of sugar, ($\frac{1}{4}$ lb. per diem) the liver becomes nearly as much enlarged as under the purely vegetable diet.

"The size of the liver compared with the weight of the animal kept on

Animal diet as 1 to 30.
Vegetable diet as 1 to 15.
Tripe and sugar as 1 to 16$\frac{1}{2}$.

"The cane sugar administered appeared as grape sugar in urine.

"Hepatine is not naturally formed for the purpose of transformation into sugar.

"Hepatine possibly exists during life in a state of combination which enables it to resist transformation into sugar."

Any plan of treating diabetis can only be successful in an occasional case. We see nothing in the paper before us that is new on this branch of the subject. Dr. C. cured himself by the adoption as diet of *bran cakes*, eggs, fat meats, greens, avoiding at the same time all articles containing starch or sugar.

We have never seen a well marked case of the disease cured, and hence we read the paper before us with great interest.

A Hand-Book of Hospital Practice; or, an introduction to the Practical Study of Medicine at the bedside. By ROBERT D. LYONS. K.C.C., M.B.T.C.D., etc., Physician to Jervis Street Hospital, Dublin; Professor of Practice of Medicine and Pathology in the Catholic University, Ireland; Professor to the Royal Dublin Society, etc. New York, 1861: S. S. & Wm. Wood, 389 Broadway—pp. 185. For sale in the city.

This book of one hundred and eighty-five pages embraces matters invaluable to students, or those, even, about to assume the practical duties of the profession. We have here presented a simple methodized plan of Clinical Observation, combined in a convenient form with brief, but explicit instructions as to the best mode of procedure for investigating any given case, arriving at a diagnosis and recording its history, symptoms, treatment, daily progress and termination. The book also contains in a condensed, yet intelligible and readily accessible form, a compendium of the preliminary knowledge most essential for rightly interpreting and using the information thus acquired and recorded by the student. Few clinical teachers are not sensible of the loss of time to themselves and the class, entailed by the want of the requisite elementary knowledge on the part of many students, to enable them to profit by what they see and hear at the bedside.

We commend this work heartily, not merely to students but to the profession. Those advanced in years and experience will find themselves, on consulting it, not only in pleasant moods, but gradually yielding themselves up to a burnishing process—complete.

Editorial and Miscellaneous.

APOLOGY.—We owe an apology to our subscribers for the tardiness of the present number. The distracted state of the country has had its influence in diverting us, as well as others, from the prescribed routine of thought. A little while ago we could read with some pleasure the dryest details of science, or spend an hour or two with the microscope in watching the movements of an infusory animalcule. Now systematized thought is out of the question. One moment the mind is occupied with the unconscious logic necessary to a prescription; the next it is stirred to excitement with the horrors of some battle that has just been fought.

OUR EXCHANGES.—A very large proportion of our Exchanges have of late failed to make their appearance. Among them we especially enumerate the Charleston Med. Jour., S. C.; Oglethorp Med. Jour., Ga.; Southern Med. & Surg. Jour., Ga; North Carolina Med. & Surg. Jour.; Nashville Med. & Surg. Jour., Tenn.; New Orleans Med. News; Virginia Med. Jour.

It is no small privation to do without these old visitors, always so welcome as co-laborers in the medical vineyard.

PROF. MEIGS.—This distinguished gentleman so long connected with *Jefferson Medical College*, has resigned the Chair of Obstetrics, Diseases of Women and Children, etc., and retired to his country residence, some twenty miles from Philadelphia.

Few teachers of Medicine have had the fortune to enjoy the reputation of Prof. M. Without being what is usually called an elegant or accomplished lecturer, he was one of the most popular that has ever been in the country. Always there was a rush of students to his room at his hour of lecturing. They seemed not only devotedly attached to the man, but they liked his method of instruction. His method it would be very difficult to define. He

took no one as a model; he attempted to follow no particular style; from, indeed, any thing like the mechanical, his was the farthest possible removed. Full of the inspirations of nature, he was animated, amusing, instructive, eloquent. He made his points well, and elaborated them with the skill of a genius.

Gunshot Wounds.—This subject is interesting to the American Surgeon. We simply enumerate a few striking facts.

A wound from a rifle ball is usually more depressed and discolored at the entrance than exit, the hole in the soft parts less in diameter than the ball; the contusion takes the form of several concentric circles, the parts involved sloughing out successively.

If the speed of a ball is great, it is very difficult to distinguish between entrance and exit.

Conical balls are seldom deflected; striking a bone they pass through it taking the shortest course; their wounds are more irregular from the fact that they often receive their impulse in the direction of a diameter not parallel to the piece, and hence the side often strikes first instead of the end.

It is said that a 32-pound ball will pass through 70 men; an 8-pound ball, 40; a one ounce ball, 4.

It has been calculated that of all gunshot wounds received in battle, there will be two in the abdomen; four in the neck or the breast; seven in the head; ten in the arms; four in the hips or legs; one in the knee, and two in the feet. Nerves and blood vessels very fortunately generally escape injury.

The sensation from a gunshot wound resembles, it is said, a smart blow from a cane. Very many, however, of the worst of wounds are unattended with the least consciousness of injury. A soldier that had both legs shot away thought he had stepped in a hole.

In field-works the proportion of the killed to wounded is greater than in the open field, from the circumstance of breast and head being more exposed in the former than in the latter position.

More men, or a larger portion of armies, were slain in battle in old times than at the present day, notwithstanding our improvements in fire-arms.

When the losses reach 33 per cent. the battle is ended. They are said to seldom reach this figure, never going beyond it.

NOTICE TO SUBSCRIBERS.—With this number we send out bills to delinquent subscribers. We expect these to receive the proper attention. To those who are in arrears, it is scarcely necessary to say, if they do not pay their accounts, we, ourselves, will have it to do. *The printer must be paid.* He is an ox that won't be muzzled.

To those of our subscribers who have been prompt, we return our thanks.

Those who have received the JOURNAL for years, and then quibbled about paying for it, may consider themselves *forgiven* by US!

FIFTEENTH SESSION OF STARLING MEDICAL COLLEGE.—We call attention to the advertisement in the present number for the ensuing session of the Starling Medical College. This institution possesses now all of the facilities for instruction in every branch of medicine. We invite an examination from preceptors and students of our means for imparting a medical education.

THE NEW SANITARY COMMISSION FOR THE ARMY.—Within the past few weeks a sanitary commission, consisting of Henry W. Bellows, of New York, President; Prof. A. D. Bache, of Washington, Vice President; Elisha Harris, M.D., of New York, Corresponding Secretary; Geo. W. Cullum, U. S. A., Washington; Alexander E. Shiras, U. S. A., Washington; Robert C. Wood, M.D., U. S. A., Washington; Wm. H. Van Buren, M.D., New York; Wolcott Gibbs, M.D., New York; Samuel G. Howe, M.D., Boston; Cornelius R. Agnew, M.D., New York; J. S. Newberry, M.D., Cleveland; George T. Strong, New York; and Frederick Law Olmsted, New York, has been organized at Washington, D. C.

This Commission, on the suggestion of the Medical Bureau, was appointed by the War Department. It "is vested with full authority to examine and inspect all posts, camps, and hospitals." It is designed, also, to look to the food, water, clothing, tents, nurses, etc.

This work, if properly attended to, will save a great number of valuable lives, besides relieving the soldier's life of much that is extremely unpleasant.

There are some things about this commission that we don't just exactly understand. It has been appointed by the War Department, and invested by the Surgeon General with its powers, but still no provision made for remuneration, not even for the expenses of the committee while traveling or when in session. The committee, as a necessity, therefore appeal to the liberality of the people for contributions to meet expenses, etc., and have named Geo. T. Strong, No. 8, Wall st., N. Y., as Treasurer.

Of the above committee *seven* are from N. York; *four* from Washington; *one* from Boston; *one* from Ohio, (Cleveland.)

As this committee must necessarily have charge of our whole country—all of the localities east, west, north and south—would it not have been well to have selected the members with reference to their experience in the endemic diseases of each great division? Camp fever, or camp dysentery, or any disease resulting from *crowd poison*, is very far from embracing all against which the soldier should be protected. The diseases of certain districts, although in themselves not so immediately fatal, nevertheless waste vital resistance very rapidly, and thus predispose to those that are fatal.

Necrological Notices.

Dr. Thomas Lawson, Surgeon-General of the United States Army, recently died at Old Point Comfort at an advanced age.

Prof. M. D. Reese died May 13th, at New York, of disease of the heart. At the time of his death, he was Professor of Medicine in the Medical College of New York, and Editor of the *American Medical Gazette.*

Dr. Reese graduated at the University of Maryland, 1819, and settled in practice in Baltimore. He was afterwards Professor of the Institutes of Medicine and Surgery and Medical Jurisprudence in the Washington University, Baltimore, and subsequently held professorships in Albany Medical College, N. Y., and the Castleton Medical College, Vermont.

Dr. Rees was widely known as a ready, vigorous writer. Few men seemed more careful of the interests and integrity of the Profession. Perhaps his apparent censoriousness, as a writer, may be due to this circumstance.

XUM

DEATH OF DR. WM. JUDKINS.—It was our fortune to enjoy but a limited acquaintance with the deceased. What, however, we knew of him impressed us very favorably.

Dr. Judkins, as far as we know, contributed but little to the literature of the profession. He was a practitioner in the full sense of the term, and enjoyed in an eminent degree the good feeling of his brethren.

"At a meeting of the medical profession, held June 24th, to take action in regard to the death of Wm. Judkins, M.D., S. O. Almy was called to the Chair, and Wm. H. Taylor was appointed Secretary.

"Remarks expressive of the high esteem in which the deceased was held were made by Drs. Woodward, L. M. Lawson, Carroll, Murphy, Almy and Comegys.

"A committee consisting of Drs. Woodward, Carroll, Gans and Fore, appointed to report resolutions, presented the following, which were unanimously adopted:

"WHEREAS, As our old and much respected friend and professional associate, Dr. Wm. Judkins, has, in the Providence of God, been called away from us by death, it is with a chastened sadness, not unmixed with pleasing recollections of his many virtues, that we assemble to pay our last tribute to the memory of the deceased.

"*Resolved*, That during many years of intimate association, we have ever found the social and professional relations of our friend to be agreeable and happy, never hearing from him censorious or envious expressions, either against the failings or the successes of his competitors for professional advancement.

"*Resolved*, That in reviewing the life and character of the deceased, we find in his constant devotion to his profession, in his high-toned morality, and in his unpretending Christian simplicity, a bright example for the imitation of those of us who survive him.

"*Resolved*, That we most sincerely tender to the family of the deceased our warmest sympathy and condolence, in their great and irreparable loss.

"*Resolved*, That we will attend the funeral to-morrow, at nine o'clock A.M.

"*Resolved*, That a copy of the proceedings of this meeting be furnished the family of deceased, and the press of the city for publication."

XUM

Died—on the 25th April, at 7½ o'clock, P. M., WASHINGTON MOOREHEAD, M.D., of Zanesville, Ohio.

The deceased was born in this city June 27th, 1807. He early chose the medical profession as his avocation, and graduated under the teachings of a Physic, a Chapman, a Gibson, and a Horner, at Philadelphia, in the University of Pennsylvania, July 31, 1829.

His disease was complex. The post mortem showed general atrophy of the muscular structure, and obesity—Polysarcia adiposa.

On opening the chest the anterior mediastinum was filled with a very thick layer of fat, resting upon the pericardium, and surrounding it; on the latter being opened but little serum was present in the sack, and the heart was found somewhat enlarged, and on its surface a thick deposit of fat which, on being separated, showed the surface unbroken, and the muscular structure atrophied, but extremely pale and bloodless. The walls of left ventricle were about half an inch in thickness and nearly two-thirds of this was fat, while those of the right were proportionally thinner than the left, and presented the same deposit. The right ventricle was dilated. The right auricle was extremely thin, as was the left. All the cavities were nearly empty, the right ventricle containing a few small loose grumous clots. On dividing the large vessels a little colorless serum came from the heart. On the semi-lunar valves a bright red congestion was seen, but none of the results of inflammation could be detected. The organs of the two cavities examined were almost bloodless and the blood anæmic; not only was fat in excess in these cavities, but it was largely deposited beneath the skin and superficial fascia and between the muscles so as to induce atrophy of their structure.

The lungs were healthy, as were the abdominal organs. It is much to be regretted that the brain was not examined.

Thus has the medical profession lost a valuable member, and the community a noble man, a skillful physician, and valuable citizen.

Rapidly are our veteran medical men passing away, too often to be replaced by mere quackish pretenders. The deceased was one who esteemed medical ethics most highly, and believed in, and practically carried it out in endorsing the olden motto—"Do unto others as ye would that others should do unto you." His acts of kindness were only exceeded by his devotion to the sick. His perception of the duties and responsibilities of

his profession were most acute, and while he contended with disease he forgot not to do good by the wayside. He was an honorable member of the Ohio State Medical Society, and took a deep interest in the proceedings of that body—and now, after a most active medical life, he has gone to that "bourne whence no traveler returns." We remain to mourn his loss as a friend and professional brother. Peace be unto his manes. H. C.

Ohio State Medical Society.—The officers elect, for the ensuing year, are as follows: For President—Dr. M. B. Wright, of Cincinnati; Vice Presidents—Drs. E. L. Plimpton, N. Dalton, J. Harman, and R. Gundry; Recording Secretaries—Drs. W. W. Dawson, and Williams of Delaware; Treasurer—Dr. J. B. Thompson, of Columbus; and R. Thompson, Librarian. The address of the retiring President, Dr. Conklin, of Sidney, is pronounced unusually fine and appropriate. Several volunteer papers were read by Drs. Pomeraine, Culbertson, Dalton and Boerstler. These papers are said to be of decided value as scientific contributions, and, together with the proceedings, will be of enough volume and importance to warrant the usual issue of the annual transactions.

We understand invitations were urged for the Society to convene in 1862 in Cleveland, and, perhaps, one or two other points; but the present delightful location seems so well adapted for all the social and scientific purposes of the Society, that it again adjourned to meet on the third Tuesday in June, 1862, at the Ohio White Sulphur Springs—*Cin. Lancet.*

Cystorrhœa *vs.* Matrimony.—A correspondent of the *Nashville Journal of Medicine and Surgery*, in the May number of that journal, says that for two years he was troubled with *cystitis*. Several "eminent physicians" were consulted, and a variety of treatment brought to bear upon the case, among which were injections into the bladder of a solution of nitrate of silver, twenty grains to the ounce.

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He was advised by his physicians not to marry; but, after being treated ineffectually for two years, he disregarded the advice in this particular. He says:—"In less than three weeks after I married, the disease was entirely well, and I have had but very few slight symptoms of the affection since. (Now, about a year.) It seemed to reduce all excitement and produce an equilibrium in the system that acted like a charm."

We think the *non-professional* treatment would be less disagreeable than injections into the bladder of a solution of nitrate of silver, twenty grains to the ounce! But should a married man unfortunately be afflicted with cystitis, what is the remedy? Must he marry again?

INFLUENCE OF THE MOTHER'S MIND UPON THE FŒTUS IN UTERO.—In the *Nashville Journal of Medicine and Surgery* for May, Dr. M. M. Davis, of Richmond, Miss., has an article upon this subject. Dr. Davis is a firm believer in the development of abnormalities and inhumanities in utero through the influence of the mother's mind. He narrates a case known to him, in which a woman had been, during her pregnancy, frequently frightened by a horse. Labor came on in due time, "and the object of her labor was expelled lifeless." Dr. Davis thus describes it:—"To the astonishment of the husband and all the attendants, it proved to be, instead of a child, something like the shape of a horse. Its head, ears, nose, neck, body, feet, and legs, were all as much like a horse as if it had been sired and foaled by that species of animals."

The second case came under his immediate observation. The lady, during her pregnancy, had taken a great fancy to a monkey, and miscarried, at what period of her pregnancy we are not informed. Dr. Davis thus describes the expelled contents of the uterus:—"From its neck it had the appearance of a well-formed four months' male fœtus, while its head, mouth, nose, and ears, resembled those of a monkey. Its left eye had no lids, but all the ball and membranes seemed to be as blue as indigo, all of which was covered by a thin, transparent membrane. The right eye was not discernible."

PROFESSIONAL TRICKSTERS.—Can it be possible that the honored and honorable diploma or license in physic should ever become a stalking-horse for trickery? Is it reasonable to suppose that the doctor would at any time be influenced by the petty sentiments of spite and envy, in his conduct toward his professional brethren? As a philosopher, or at least as a man of common sense, (a less pretentious, but by no means less creditable character,) it might be imagined that he was too intimately acquainted with the chances of life ever to think it worth while to feel anything but the deepest interest in their honor and welfare. Rightly appreciated, the success of another adds lustre to ourselves. The distinguished conduct of each conduces to the distinction of all, just as the prosperity of all contributes to the well-being of each. In this light there would be no place for envy, and the noblest of professions, standing among the first in science as it is the first in benevolence, disinterestedness, and fraternal kindness, would not be sullied by those bickerings and heartburnings which too commonly beset the course of every-day life. But, alas for human nature!

In yonder row of spacious mansions resides, no matter whence his wealth, a very rich man, who has purchased two of the houses and thrown them both into one. He is so rich that he consumes upon himself alone more than twice as much as any other ordinary human being, and singular to say, enjoys better health than most mortals. His grooms, his horses, his furniture, and his household, all bespeak the man of money. He is a rare child of fortune, and fortune is good so long as she lasts. But what of that? He is sometimes ailing, and in the hour of need, real or imaginary, resorts to the aid of medical skill. What a pluming of pinions among the rising M.D.'s! What a shuffling of feathers among the eager general practitioners! What tiptoe excitement to learn upon whom will fall the patronage of one who is as much beneath them in intelligence as he is above them in wealth! Of course, only one can be selected. The rest bite their lips and retire. The great man takes a dislike to the one he has chosen. He turns him off and calls in a second, who is in turn dismissed as summarily as the first. Both the first and the second were men of approved talents and probity; but the great man does not care for that; they did not suit him, and he puts them aside at a moment's notice. He at last falls in with one to his entire satisfaction, in the person of an ignoramus as clever as himself. It is a decided hit; they were made for each

other; and Dives and Ignoramus go hand in hand. The squad of the rejected look on and wonder, but it is a wonder to no one except themselves.

In that well-furnished nusery lies a sick child, tended by its officious nurse, and watched by its sensitive mamma with continued and restless solicitude. The care bestowed upon the infant is out of all proportion to the exigency of the case. The child is ill and may possibly die, but will, under ordinary care and attention, in all probability, recover. The medical man who has charge of the case is a well-informed and experienced practitioner, perfectly aware of the contingencies of the ailment, and camly alive to the whims and fancies by which he is beset. His little patient lingers on; his credit is on the wane. Another practitioner is named of infallible skill, particularly in cases of this description; and he is called into consultation along with the family medical attendant. At the appointed hour, a carriage and pair drive up to the house; no knocker is raised, for fear of a noise; only the door-bell vibrates gently; and in walks the pattern M.D. He is a tall man with an obsequious stoop, and his knees slightly bent. His hair is brushed back; he wears gold spectacles, a white tie, and a black suit. There is no creaking of his shoes, and his manner is bland and soothing. He hangs over the crib of the dear sick child in a solemn attitude of observation; touches it lightly, listens to its breathing, feels its tiny pulse at the wrist, and then, quietly looking up, asks the old practitioner, who is standing by and looking on, whether he has given his little patient *Tous les mois*—a panacea at that time only just introduced. The answer is in the negative. What?—Not!—replies the pattern, with an affected look of surprise; not given *Tous les mois? Tous les mois*, nurse; *Tous les mois*, my lady—turning to the agonized mamma—*Tous les mois* will cure your child! The old practitioner is dismissed, on the score of ignorance, and under the judicious use of *Tous les mois* the child recovers.

There are tricks in every trade, but of all tricks, professional pedantry is the most detestable. It has it all its own way. The party duped can have no insight into the secrets by which he is guided in the management of his property, his soul or his life. He must trust implicitly to the integrity and skill of his professional adviser, whom he flies to in moments of the last resort. It is in the embarrassment of such occasions that the trickster succeeds.

There is the opportunity of putting himself forward, and he seizes it with adroit avidity.

The *monstror digito prætereuntium* is a vanity common to all sorts of professional persons—the painter, the musician, the poet, the medical man, and artists of every description. It is gratifying to have ourselves pointed out as we pass along, and hear it said, that is he: *pulchrum est digito monstrari et dicier Hic est*, as Tacitus says, speaking of the orators. It is a venerable folly, sustained by classical authority, countenanced by Cicero, and quizzed by Horace. A slave nudged the aspirant for public favor in the side, *(fodiat latus,)* and whispered in his ear the name and title of those who met or passed him in the way. It is the same now as it was then. The rising medical man does not indeed retain a nomenclator at his elbow, but he does what is equally as effective, for he publishes a book to make himself known, and he rides in a carriage to let himself be seen. The world will not step out of its way to look after you. If you are not known, you may as well be lost or dead. Unadvertised, you go for nothing. You must proclaim your own merits, and put forward your own pretensions, with the best grace you may, or else make up your mind to subsist on modesty truth, and small means for the rest of your days.

The competition which such a line of conduct necessarily provokes engenders the heartburnings and petty rivalries that ruffle the social surface of the medical world. It is the old story—there cannot be two Cæsars in the same camp, nor two Kings of Brentford in the same village—*omnis potestas impatiens consortis*, and in the medical profession this is particularly the case. There can be no partnership in medicine, for it turns upon personal merit; if one succeeds the other fails, and the one that fails envies or hates his successful rival. Consequently, unless the mind and temper be extremely well regulated, the egotism and self-sufficiency of the medical character are almost proverbial. Who ever supposes that doctors were framed for the love of one another? No one, unless he be a simpleton or a novice. Men of the world suppose no such thing. They take it for granted that two of a trade never agree. Hence it is that, though unfounded in fact or reasom, medicine holds so low a place in their esteem. Without giving themselves the trouble of examining the essential difference between charlatanism and science, they *lump* the whole together, and regard it all as a mystery or pretense, which they must use as well as they can,

whenever the hour for having recourse to it is forced upon them. Were it not for this adverse impression, medicine would long ago have gained the ear and secured the attention of government, upon the ground of its being a practical science of the highest national importance.

People are misled by appearances. The general practitioner you see driving along in his open barouche was educated at a small preparatory school, served his time in an apothecary's shop, passed his examinations, and is now playing the fine gentleman. He never attends a servant, nor any inferior person—*i. e.* an unpaying patient, except as an act of grace. No one could be more timid than he was on his first commencing practice. A child might have whipped him with a straw. At this critical juncture he besought the aid of one much older, if not wiser, than himself, and in him found a friend who fulfilled indeed the adage of being a friend in need. Night and day he beset his friend's door, which was always open to his call, and there he found, what he required, help in his necessities, consolation for his alarms, and the assurance of his final success. The hour of success arrived as it had been predicted; but no sooner had it arrived than he kicked the ladder that had helped him up from under his feet, mounted the platform, as it were, by his own unaided efforts, and stood alone. Now he lords it among the best of his fellows. Only a few are good enough to be countenanced as his equals. His manners and deportment are supercilious and overbearing He takes the upper hand with his brethren, except those to whom he thinks proper to bow, to cringe, or to court. Colbert, in the reign of Louis XIV., did the same, and so did Sir Andrew McSycophant, in the *Man of the World*. It is by no means a bad game, although it sometimes fails egregiously. As to his absolute knowledge and acquirements, they are as shallow as shallow can be, but perfectly suitable to that class of delicate cases in which the married and unmarried in brocade and finery are supposed to rule supreme. His behavior is what is emphatically styled *sugary*, and he is a lady's man in every sense of the word.

The puppets that strut upon the stage of the world are as numerous and amusing in medicine as they are in any other profession, trade, or calling. Perhaps more so, because the practice of physic ministers directly to the self-love and egotism of its votaries. None but his admirers and friends seek the popular practitioner; he

never knows his enemies, who never consult him. He moves in a charmed circle, within the sphere of which he meets with nothing but adulation, and beyond which he never steps. He is a pet in the fullest meaning of the word. His little world cannot live without him, till it has changed its mind, and then he must learn to live without it.

The stage upon which he struts has its loose boards, which sometimes slip from beneath his feet before he is aware of it. It is his ignorance of the jeopardy in which he is placed that makes him forget himself and pretend to be something great. He cannot see, nor does he know, that so long as his career lasts, he is nothing better than an actor dressed up for the hour to suit the nonce. He calls down the plaudits of the house whenever he appears on the boards. But let him quit the scene, and walk the streets by daylight as a private man, and he will find that no one knows him in his plain clothes. The applause which made him giddy was due to his office, not to himself. The next that treads in his steps will succeed as ably as he has done, and fail or fall as quickly as himself. Professional friendship is the expression af public confidence. As such it is invaluable, since it is, in fact, only another term for character and reputation; but overrate it, and you will find to your cost that, like the ass in the fable, you have made a false step by leaping into your master's lap.

There is a ripe season in every one's life, which soon comes to a close. The summer solstice is brief. The best man has his day. The best actor may linger too long upon the stage. The *vivas* of yesterday will be re-echoed by the *à bas* of to-morrow.

The same shield has its two sides, the golden and the leaden one. We have been looking at the lead; now let us see the gold. In an age which was none of the brightest, Charles II. did not hesitate to reward the author of the *Religio Medici*, and the good and quaint Sir Thomas Browne still adorns the list and library of the Royal College of Physicians. The writings of Sydenham are the best comments on himself, and his worth has obtained for him the inestimable title of the Father of English Medicine. The evening of life closed in upon Boerhaave, and found him in the vale of years still studious and religious, endeavoring to dispense for the maladies of others that relief which he had failed to procure for himself. It is superfluous to expatiate on the virtues of these great men. They are known to all the world. But if there were giants in those

days, the men of modern date are not pigmies. The names of Babington, Bailey, Cooper and Abernathy, are as household words upon our lips; and their successors, Brodie, Bright, Watson, Copland, Todd, and others, whom it would be as invidious to omit as to mention, deserve no less a meed of praise. Their career is graceful and attractive, because it is their own. They are what they are, and no change of fortune could dwarf their just proportions. Medicine owes them everything. Good sense and good taste, sound learning and practical skill, modesty and worth, are qualities which compel universal respect, defy criticism, and outlast time.

Dignum laude virum Musa vetat mori.

(*Medical Critic and Psychological Journal*, April, 1861.)

THE NECROLOGY OF CHLOROFORM.—At a meeting of the Western Medical Society of London, reported in the *Medical Times and Gazette*, Dr. Sansom remarked that he considered that, at the highest estimate, the number of deaths from chloroform to the number of inhalations bore the proportion of one to ten thousand. Various considerations, however, concurred to show that this should be very much more favorable. In the first place, it was very probable that several of the deaths were from shock or fright, and not from chloroform; and in furtherance of this view was the fact that half of the number of deaths occurred before the commencement of the operation for which chloroform was administered. Another avoidable circumstance increasing the death rate was supposed to be carelessness and laxity in the administration of the vapor. Circumstantial records of thirty-four cases of death, which have occurred since the publication of Dr. Snow's work, were presented; the author combined them with those recorded in that volume, and offered an analysis of their most salient points. In cases of death the proportion of males and females is about two to one, and this seemed to the author strange, since the anæsthetic is so largely used in midwifery. The average age for death is thirty to forty It certainly seems that the strong and healthy stand a worse chance than the debilitated; but of all states of the system, chronic or acute, alcoholism the most predisposes to death. Extensive disease of the lung occasionally disposes to death from asphyxia; dis-

ease of the heart probably does not influence the mortality. Dr. Sansom strongly deprecated the administration of chloroform sprinkled on handkerchiefs, etc., basing this not only on the observed fact that a highly-charged atmosphere (5 per cent. Snow, 8 per cent. Lallemand, Perrin and Duroy) was fatal to animals, but on the circumstance that, of all the cases which he had collected, only two were mentioned as occurring wherein a proper inhaler had been used. Of fifty-one cases, thirty-eight declared their danger by sudden stoppage of the pulse. Five deaths occurred in which there was manifested great muscular excitement, collapse immediately following; these were all strong men in their prime. Sudden vomiting, and then death occurred twice; congestion of the face was the most marked sign in six, and cessation of breathing in eight cases. Dr. Sansom considered that death occurs both by asphyxia and by syncope—in animals by palsy of respiration, the heart being "ultimum moriens;" in man occasionally from this cause, but more frequently from palsy of the heart, the respiration outliving it. In animals a constant sign on post-mortem examination is distension of the right chambers of the heart; in man this is a frequent, but still far from a constant sign. Fluidity of the blood, and a dark color thereof, occur almost invariably. The following were the author's conclusions:—In animals deaths occur by asphyxia, and begins in the brain. In man death occurs by asphyxia or syncope, and begins in the brain, in the heart, or in the lungs. Artificial respiration is the only reliable means for restoration in critical cases. Galvanism of the phrenic is valuable where the means are at hand. Before anything is done, the tongue should be well drawn forward, and the mouth and throat cleared from mucus.

A Correspondent of the Medical and Surgical Reporter writes from Camp Hamilton, near Fortress Monroe, Va., June 12, 1861:

"All of the camps have suffered somewhat from bowel affections incident to so great a change in diet and habits; very few becoming serious, however. Contagious diseases, we are happily thus far exempt from. Several severe cases of *pneumonia* and *pleurisy* have occurred among the troops, and, since the weather has become very warm, a number have suffered from coup de soleil. On the 10th instant, several regiments were marched ten miles towards York-

town, and, while on the march, one regiment came upon another mistook them for enemies, and gave them a volley, wounding quite a number. The force afterwards came upon a battery of the enemy, and were stopped, killing several, and wounding twelve or fifteen. The battery commanded the approaches for half a mile, and all the buildings in the vicinity were in range of the guns; nevertheless, they were occupied as temporary hospitals, and such relief as could be afforded them was there rendered by the respective surgeons of the regiments engaged. We felt sadly in need of instruments—most of us having only a dressing-case. The department states that we shall be furnished with the necessary instruments; one amputating-case and one pocket-case are not sufficient for a regiment, and these are all that is furnished to us, not including so necessary an instrument as a catheter or a bougie—no silver wire or suture pins. Dr. Cuyler, the medical director of this district, would be very glad to furnish us, but he has no supplies. I supposed, when I entered upon this service, that there was some such thing as an ambulance used in war; but such a luxury is not known here—at least we are not provided with anything more than a hand-litter. We were obliged the other day to impress into our service the dilapidated carts and donkeys by the way, and in such rude manner drag at a snail's pace our wounded, under a burning sun, ten miles back to Hampton, where those badly hurt were put on boats, and taken round to the general hospital established by Dr. Cuyler outside the fort for the volunteer forces. This establishment is extensive and well arranged, and, when furnished complete, will accommodate five hundred patients. The building was formerly the hotel at Point Comfort. I was present yesterday while Dr. Cuyler was dressing a very interesting case—that of a man with compound fracture of the femur at the trochanter, the grape-shot entering in front and escaping at the post-gluteal region. The doctor was attempting to save him from the terrible alternative of amputation at the hip-joint. Others were wounded as follows:—one with a compound fracture in the middle third of the thigh, put up and dressed as for ordinary fracture; one suffered amputation of the fore-arm, and one of the arm near the elbow on the field of battle; one shot through the lower part of the abdomen; one shot through the axilla, one in the epigastrium, and one in the back, penetrating the chest, were seemingly doing well."

Convallaria in Ecchymosis.

A writer in the *Medical Times and Gazette* says:—"A correspondent asks the communication of an effective remedy for ecchymosis of the eye in a lady patient who had met with an accident. One which I have used for a great many years, never disappointing me, usually getting rid of the blackness in a few hours, is the root of the 'Convallaria,' 'Solomon's Seal.'" It should be washed, the dark colored cuticle carefully cut off, then scraped like horse-radish, applied direct to the eye in the way of a poultice, cold. A tingling sensation is the consequence; when this sensation ceases, another fresh application should be made, and repeated until the whole ecchymosis is absorbed. I have often found it sufficient to apply the scraped root at bedtime to the closed eye, when the blackness has disappeared by the morning. The convallaria is readily found, and is equally effectual at this season of the year.—*Druggists' Circular.*

Chloroform Liniment in Toothache.

Take the white of an egg, and add an equal bulk of chloroform, and digest four hours at an ordinary temperature. Apply this to the gum, immediately above the aching tooth, by saturating a piece of lint, over which is to be placed a second piece of dry lint larger than the first, in order to protect the lips, which are to be allowed carefully to fall on the two in order to retain them in their places. We have found this invaluable in the relief of such disturbances as are not dependent on fully developed inflammation, such as neuralgic disturbances, and the first stages of periostitis. A more powerful liniment can be made by taking one part of white of an egg and four of chloroform, placing them in a bottle, which is to be completely plunged into a water-bath at from 120° to 140°. Gelatinization takes place in four minutes. This is to be rubbed on any painful part, and great relief is produced. The slow cauterization it gives rise to, and the protection of the part from the atmosphere, render it a very powerful counter-irritant. The cold preparation is perhaps the best and easiest made, and when a decided effect is required, it should be repeatedly used.—*London Pharm. Journ., April,* 1861, *from American Journal of Dental Science.*

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Medical Missionary Society of China.—The twenty-second annual meeting of this Society was held at Canton, January 17th, 1861. From the report of the hospital, presented by John G. Kerr, M.D., we learn that the number of patients received during 1860, was 17,631. Two hundred and six in-patients were admitted, and more than two hundred and fifty surgical operations were performed. The diseases treated have been, a majority of them of a chronic character. Those of the eye and skin, rheumatism, bronchitis, dropsy, scrofula, have been most numerous. The vaccine department established last year, has been continued with very satisfactory results. In the spring some fresh lymph was obtained from Dr. Murray, Colonial Surgeon of Hong Kong, from which about seven hundred were vaccinated. Vaccination has been practiced in China for many years, and the history of its introduction there is as follows: A man, whose family name was Yau, was instructed in the art in 1805 by Dr. Alexander Pearson. He continued in the practice for many years, and was succeeded by his son, from whom the Missionary Society procured the lymph. His method of operating was to make four or five transverse incisions in the arm, half an inch long, with the lancet, and then dipping it in the mature vesicle the lymph is transferred directly from one arm to another. Mr. Yau has a portrait of Dr. Pearson in his office, and he also keeps for distribution a concise history of vaccination, from which it appears that "it came from the west." "In the tenth year of the Emperor Ka Hing, (1807,) my honored father, Ho Chun, first obtained and disseminated it every where. Verily it is an advantage to children that they may escape the heaven's flowery pestilence (small-pox.) Formerly, when the General Topography of Canton Province was being revised, the Gov. Gen. Un commanded the account of vaccination to be inserted in the records of the capital in connection with my honored father. In the nineteenth year of Ka Hing, (1815,) application was made to the Hong merchants to establish a vaccine dispensary so that the virus might never be lost. In the twenty-second year of Ka Hing, (1818,) my honored father commanded me to devote myself exclusively to this art in the dispensary." In the twenty-seventh year of Tau Kwong, 1849,) Tau went to the imperial city to disseminate vaccination; in 1850 his father died, and as his dying injunction, said: "You, my eldest son, have received my instructions for more than thirty years—hereafter it devolves upon you to disseminate abroad this benevo-

lent art, and never permit it to be lost." In 1852 the vaccine dispensary was re-established, and Yau was invited to superintend the business. "Now," he says, "the virus which I use is derived directly from that brought by the Hong merchants, and before it is used, a man skilled in detecting leprosy examines the child, and thus all danger is avoided." From this source it is probable vaccination is extensively practiced in the celestial empire.—*Phila. Med. and Surg. Reporter.*

Gouty Concretions in the Ear.—Concretions, occupying the lobe of the ear, within the helix, in the shape of small round prominences, under the skin, have often been observed in gouty persons, *i. e.*, in subjects presenting manifestations of the lithic diathesis. Left to themselves, these concretions are sometimes spontaneously eliminated without the interposition of any inflammatory action, and leave a slight scar behind.

This is not a new disease. English practitioners, who have more frequent opportunities than ourselves of studying gout, have already observed them. Garrod asserts that they are to be met with in half the cases, and even that their appearance sometimes precedes the other manifestations of the morbid diathesis. This would therefore be a very valuable element in the diagnosis of incipient gouty affections. Mr. Charcot has observed but six individuals affected with gout, in consequence of the rarity of this disease in hospitals; of these six patients, three presented the concretions we have just noticed. Extracted by means of a small incision, they displayed the aspect of a plaster-like matter, constituted by hard crystals. If they are analyzed, their chemical composition is found to be that of articular tophus; the addition of acetic acid causes the deposition of uric acid, in very apparent crystals. [*Md. & Va. Med. Jour.*

Clement A. Finley, M.D., recently promoted to the office of Surgeon-General of the United States Army, is a native of Ohio. He entered the army as Assistant-Surgeon on the 10th of August, 1818, nearly forty-three years ago, and was promoted to the rank of Surgeon on the 13th of July, 1832. He was the Senior Surgeon in the Medical Department of the Army, and entitled to the promotion. The Senior Surgeon of the Army, now, is Dr. Satterlee.—*Amer. Med. Times.*

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STARLING MEDICAL COLLEGE,

COLUMBUS, OHIO.

FOR THE SESSION OF 1861-62.

The n xt session of Starling Medical College will commence on Thursday, October 16th, 1861, and will be continued until the 1st of March.

The Dissecting rooms for the study of practical Anatomy, will be open from the commencement of October.

The Museum of the Institution has been made very attractive by late receipts from France and Germany.

The College building is in complete order, the east wing having been entirely completed.

FACULTY:

S. M. SMITH, M.D.,
Professor of Practice of Medicine—Physical Diagnosis.

FRANCIS CARTER, M.D.,
Professor of Obstetrics—Embryology, Diseases of Women and Children.

JOHN DAWSON, M.D.,
Professor of Anatomy—Microscopical Anatomy and Physiology.

J W. HAMILTON, M D,
Professor of Surgery—Eye and Ear Surgery.

S. LOVING, M.D.,
Professor of Materia Medica—Hygene.

THEO G. WORMLEY, M.D,
Professor of Chemistry—Toxicology.

R. N. BARR, M.D.,
Demonstrator of Anatomy.

FEES:

Tickets of all the Professors, ...	$60 00
Matriculation Ticket, paid but once, ...	5 00
Graduation Fee, ...	20 00

Subjects for dissection in the building, furnished at a moderate expense, on application to the Demonstrator of Anatomy, *and in no other way.*

There are two extensive Bookstores in Columbus, at which Medical works in great variety are sold at very low rates. Surgical, Obstetrical and Dissecting instruments are readily obtained.

All letters of inquiry will receive prompt attention, if addressed to any member of the Faculty, or to

S. M. SMITH, *Dean.*